





REPORT

OF THE

SECRETARY OF THE INTERIOR

U.S. Dept. of the Interior.

IN RESPONSE TO INQUIRIES OF

SELECT COMMITTEE OF UNITED STATES SENATE,

APPOINTED IN PURSUANCE OF RESOLUTION OF THE SENATE ADOPTED
MARCH 3, 1887, TO INQUIRE INTO AND EXAMINE THE METHODS OF
BUSINESS AND WORK OF THE EXECUTIVE DEPARTMENTS.

With the compliments

of the

Secretary of the Interior.

1887.

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ACCESSIONS DIVISION

THE DEPARTMENT OF THE INTERIOR.

CORRESPONDENCE.

Mr. Cockrell to Mr. Lamar.

UNITED STATES SENATE,
Washington, D. C., March 18, 1887.

The Select Committee of the Senate, appointed in pursuance of the resolution of the Senate adopted March 3, 1887, "to inquire into and examine the methods of business and work in the Executive Departments of the Government," &c., have instructed me, as chairman, to request you to furnish to the committee, at your earliest convenience, a detailed statement of the methods of transacting business in each division of your office and in each division of each Bureau of your Department, including one or more items of the principal business matters transacted in each of such divisions, beginning with the receipt of the business matter in the Department, and then showing in consecutive order the various steps taken by each of such business matters, through the various divisions of your office and the various Bureaus and divisions of such Bureaus and employes through whose hands the same passes, and by whom it is considered and acted upon and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

I have the honor to be, most respectfully, yours, &c.,

F. M. COCKRELL,
Chairman Senate Select Committee.

HON. L. Q. C. LAMAR,
Secretary of the Interior.

Mr. Cockrell to Mr. Lamar.

UNITED STATES SENATE,
Washington, D. C., March 18, 1887.

MY DEAR SIR: The Select Committee of the Senate, appointed in pursuance of the resolution of the Senate adopted March 3, 1887, "to inquire into and examine the methods of business and work in the Executive Departments of the Government, the time and attention devoted to the operations thereof by the persons employed therein, and generally to inquire into and report to the Senate the causes of the delay in transacting the public business said to exist in some of the Departments," have instructed me, as the chairman, to request you to furnish to the committee, at your earliest convenience a detailed statement showing the amount and character of business pending in each division of your office and in each division of each Bureau of your Department on the 1st day of January, 1884, and the amount and character of business received, and also transacted and disposed of in each division of your office and in each division of each Bureau of your Department during said calendar year 1884, and on hand, pending, and undisposed of on January 1, 1885, and the amount and character of business received, and also transacted and disposed of in each division of your office and in each division of each Bureau of your Department during said calendar year 1885, and also on hand, pending, and undisposed of on January 1, 1886; and the amount and character of business received, and also transacted and disposed of in each division of your office and in each division of each Bureau of your Department during said year 1886, and also on hand, pending, and undisposed of on January 1, 1887; and received, and also transacted and disposed of in each division of your office

and in each division of each Bureau of your Department during said year 1887 up to March 1, 1887, and on hand, pending, and undisposed of in each division of your office and in each division of each Bureau of your Department on said March 1, 1887; and also a detailed statement showing the average amount and character of business performed, transacted, and disposed of by the employés in each division of your office and in each division of each Bureau of your Department, and the average number of employés in each of such divisions, during each month in said years 1884, 1885, 1886, and 1887 up to March 1, 1887; and also the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least in each of such divisions during each of said months of said years, and if no account has been kept of the business performed and disposed of by each employé in any of such divisions during said years or any part or parts thereof, the reasons why such account has not been kept; and also a statement showing the average number of days, and the time and attention devoted to the consideration and transaction of business by the employés in each of the said several divisions, and whether in person or by proxy during each of said calendar years 1884, 1885, 1886, and 1887 up to March 1, 1887, or during such parts of said years or either of them, as such employés or any of them may have been receiving pay from the United States, and also the maximum and the minimum number of days during each of said years and up to March 1, 1887, so devoted to business by the employé in each of said divisions, present for the greatest number of days, and also for the least number of days. If the data called for by calendar years cannot be given as readily by calendar years as by fiscal years, then substitute for the calendar years named the fiscal years 1884, 1885, 1886, and 1887 up to March 1, 1887, and thus save as much unnecessary labor as possible.

I have the honor to be, most truly, yours,

F. M. COCKRELL,
Chairman Senate Select Committee.

Hon. L. Q. C. LAMAR,
Secretary of the Interior.

Mr. Cockrell to Mr. Lamar.

UNITED STATES SENATE,
Washington, D. C., March 23, 1887.

MY DEAR SIR: The Select Committee of the Senate, appointed in pursuance of the resolution of the Senate adopted March 3, 1887, to inquire into and examine the methods of business and work in the Executive Departments, &c., have instructed me, as chairman, to request you to furnish to the committee at your earliest convenience a statement of the present legal organization of your Department; the number and designation of officers and employés in your office; the number and designation of Bureaus; their officers and employés in number of each grade and class, including any branches of service and commissions not designated as Bureaus; number of officers and employés; and in Bureau of Pensions, in addition to office force, special agents or examiners, the number of boards of examining surgeons for pensions, and the number of the members of such boards and the number of individual examining surgeons for pensions and the number of pension agents and employés in their offices; the number of land officers and of registers and receivers; the total number of their employés, if known; the number of surveyors-general and their employés, if known; the number of Indian agencies, agents, and employés, including physicians and teachers; and the number of Territorial governors and secretaries; and the number and designations of any other officers and employés under your Department supervision not before specially named, so as to give correctly and concisely a bird's-eye view of your whole Department and its operations and force.

Yours, truly,

F. M. COCKRELL,
Chairman, &c.

Hon. L. Q. C. LAMAR,
Secretary of the Interior.

Mr. Lamar to Mr. Cockrell.

DEPARTMENT OF THE INTERIOR,
Washington, July 6, 1887.

SIR: Referring to your letter of March, 1887, requesting statements showing the methods of business, &c., in each of the several divisions of the offices of this Department, I have the honor to transmit herewith reports from the following offices: General Land Office, Pension Office, Office of Indian Affairs, Office Commissioner of Railroads, Bureau of Education, and the Bureau of Labor.

The reports from the remaining offices under this Department will be sent as early as practicable, and it is believed that they will all be completed very soon.

Respectfully,

L. Q. C. LAMAR,
Secretary.

Hon. F. M. COCKRELL,
Chairman Senate Select Committee.

Mr. Muldrow to Mr. Cockrell.

DEPARTMENT OF THE INTERIOR,
Washington, July 18, 1887.

SIR: In further compliance with the request contained in your communication of the 18th March ultimo, I have the honor to transmit herewith reports of the Secretary's Office and the Patent Office on "the methods of business and work" in the several divisions of these offices.

Very respectfully,

H. L. MULDROW.
Acting Secretary.

Hon. F. M. COCKRELL,
Chairman Senate Select Committee on the Executive Departments.

Mr. Lamar to Mr. Cockrell.

DEPARTMENT OF THE INTERIOR,
Washington, June 22, 1887.

SIR: In compliance with your request of March 23, last, there is transmitted herewith a statement of the present legal organization of this Department, the number and designation of officers and employes in each of its offices and Bureaus, and the various branches of service connected with this Department both in and outside of Washington, showing the total number of such persons on March 31, 1887, to have been 9,154.

Very respectfully,

L. Q. C. LAMAR,
Secretary.

Hon. F. M. COCKRELL,
Chairman Select Committee of the Senate.

REPORTS OF BUREAUS, &c.

LEGAL ORGANIZATION, OFFICERS AND EMPLOYÉS.

Legal organization.

Office of the Secretary.
 Office of the Assistant Attorney-General.
 General Land Office.
 Office of Indian Affairs.
 Pension Office.
 Patent Office.
 Office of Education.
 Office of Commissioner of Railroads.
 Geological Survey.
 Bureau of Labor (10 offices or Bureaus).
 Also—
 The Interstate Commerce Commission.
 The United States Pacific Railway Commission.
 Together with—
 The Government Hospital for the Insane.
 The Freedmen's Hospital.
 Architect of the Capitol.

PRESIDENTIAL OFFICERS.

	Number.
Chiefs of Bureaus and similar departmental officers	24
Registers of land offices	111
Receivers of public moneys	111
Surveyors-general	15
Surveyor of Military District in Ohio	1
Indian agents	60
Indian inspectors	5
Members of Board of Indian Commissioners	10
Indian School Superintendent	1
Commissioners (temporary) for negotiations with Indians	3
Pension agents	18
Government Directors of Union Pacific Railway Company	5
Governors of Territories	9
Secretaries of Territories	8
Alaska Commissioners	4
Utah Commissioners	5
In the District of Columbia: Architect of the Capitol, Inspector of Gas and Meters, Register of Wills, Recorder of Deeds, nine Visitors to Insane Asylum ..	13
Interstate Commerce Commissioners	5
Pacific Railway Commissioners	3
Grand total of officers under Department of the Interior within the ap- pointment of the President	411

THE DEPARTMENT OF THE INTERIOR.

Departmental officers and employes.

Title or grade.	Salary.	Office Secretary.	Office of Assistant Attorney-General.	General Land Office.	Office of Indian Affairs.	Pension Office.	Patent Office.	Office of Education.	Office Commissioner of Railroads.	Geological Survey.	Bureau of Labor.	Total.
Specifically appropriated for												2,896
Secretary of the Interior	\$8,000	1										1
First Assistant Secretary of the Interior	4,500	1										1
Assistant Secretary of the Interior	4,000	1										1
Commissioners	5,000					1	1					2
Do	4,500								1			1
Do	4,000			1	1							2
Do	3,000							1			1	2
First deputy commissioner	3,600					1						1
Second deputy commissioner	3,600					1						1
Assistant commissioner	3,000			1	1		1					3
Director	6,000									1		1
Chief clerk	2,750	1										1
Do	2,400									1		1
Do	2,250			1		1	1					3
Do	2,000										1	1
Do	1,800							1				1
Assistant chief clerk	2,000					1						1
Executive officer	3,000									1		1
Chief disbursing clerk	2,400									1		1
Medical referee	3,000					1						1
Assistant medical referee	2,250					1						1
Qualified surgeons	2,000					2						2
Medical examiners	1,800					18						18
Examiner in charge of interferences	2,500						1					1
First assistant examiners	1,800						32					32
Second assistant examiners	1,600						36					36
Third assistant examiners	1,400						41					41
Fourth assistant examiners	1,200						50					50
Chiefs of division	2,000	6			1	12	3					22
Assistant chiefs of division	1,800					24	3					27
Members board of pension appeals	2,000	9										9
Special Indian agents	2,000				5							5
Superintendents of Indian schools	Vari's				5							5
Special inspectors public land service	2,500	2										2
Superintendent of documents	2,000	1										1
Inspectors of surveyors-general and district land offices	2,000			3								3
Recorder of General Land Office	2,000			1								1
Law clerk	2,750		1									1
Do	2,500		1									1
Do	2,250		1									1
Do	2,000			2		1	1					4
Law examiners	2,000			2								2
Principal clerks	1,800			3								3
Financial clerks	2,000						1					2
Principal book-keeper	1,800				1							1
Book-keeper	2,400								1			1
Assistant book-keeper	1,800								1			1
Book-keeper for custodian	1,200	1										1
Custodian (clerk of class 3)	1,600	1										1
Railroad engineer	2,500								1			1
Statistician	1,800							1				1
Examiners-in-chief	3,000						3					3
Principal examiners	2,400						28					28
Do	2,000					45						45
Librarian	2,000						1			1		2
Translator	Vari's						*1	1			†1	3
Collector and compiler of statistics	2,400							1				1
Private secretary to Secretary of the Interior	1,800	1										1
Clerks of class 4	1,800	5		39	5	74	3	2			2	130
Clerks of class 3	1,600	7	1	56	8	95	4	2	1		1	175
Clerks of class 2	1,400	6		67	10	372	14	4			2	475
Clerks of class 1	1,200	10		73	15	361	43	6		2	2	512
Clerks at	2,000		5									5
Do	1,200	1										1
Do	1,000			50	9	200	27	2		1	2	291
Do	900									4		4
Census clerk	1,800	1										1
Returns office clerk	1,200	1										1

* Clerk class 3.

† Clerk class 1.

Departmental officers and employes—Continued.

Title or grade.	Salary.	Office Secretary.	Office of Assistant Attorney-General.	General Land Office.	Office of Indian Affairs.	Pension Office.	Patent Office.	Office of Education.	Office Commissioner Railroads.	Geological Survey.	Bureau of Labor.	Total.
Female clerk to sign land patents	\$1, 200	1										1
Stenographers	1, 600				1	3					*1	5
Clerk and stenographer	1, 600		1									1
Stenographers or type-writers	1, 200	†2										2
Stenographers	1, 200										*1	1
Skilled draftsmen	1, 200						3					3
Draftsmen	1, 600				1							1
Do	1, 000					3						3
Copyists	900	7		52	12	85	63	7	1		2	229
Do	800							2				2
Do	720						4	1		4		9
Copy-holders	720										2	2
Special agents	1, 400										18	18
Special examiners	1, 400					150						150
Machinist	1, 600						1					1
Superintendent of buildings	1, 400					1						1
Photographer	2, 000									1		1
Assistant photographer	900									1		1
Do	720									1		1
Do	480									1		1
Engineers	1, 200	1				2						3
Assistant engineers	1, 000	1										1
Captain of watch	1, 000	1										1
Do	840					1						1
Lieutenants of watch	840	2										2
Sergeants of watch	750					3						3
Watchman at	840									1		1
Do	720	38				20					1	59
Do	600									4		4
Skilled mechanic	900	1										1
Do	720	1										1
Messenger and property clerk	1, 000						1					1
Skilled laborer at	1, 200						1					1
Do	840							1				1
Do	720						92					92
Do	600										1	1
Messengers	840	3			1	25						29
Do	480									4		4
Model attendants	1, 000						5					5
Do	800						10					10
Assistant messengers	720	7		8	2			1	1		1	20
Do	600										1	1
Messenger boys	400					20						20
Do	360				1		15					16
Laborers	660	12		12	1	25		2				52
Do	600	1					45					46
Do	480						40	2				42
Do	400							1				1
Do	360							1				1
Laborers for Reports Tenth Census	660	1										1
Telephone operator	600	1										1
Conductor of elevator	720	1										1
Packers	660	4		6								10
Firemen	720	6				3						9
Janitor	600									1		1
Charwomen	240	4			2	5					2	13
Special scientific force :												
Geologists	2, 000 to 4, 000									12		12
Paleontologists	2, 000 and 4, 000									2		2
Chemists	2, 000 and 3, 000									2		2
Chief geographer	2, 700									1		1
Geographers	2, 500									3		3
General assistant	3, 000									1		1
Topographers	2, 000									3		3
Not specifically appropriated for												313

* Clerks class 3.

† Clerks class 1.

Department officers and employes—Continued.

Title or grade.	Salary.	Office Secretary.	Office of Assistant Attorney-General.	General Land Office.	Office of Indian Affairs.	Pension Office.	Patent Office.	Office of Education.	Office Commissioner Railroads.	Geological Survey.	Bureau of Labor.	Total.
Superintendent New York Indian Warehouse	\$1, 800				1							1
Commissioners for Indian negotiations.....	Vari's.				4							4
Custodians military reservations.....	Vari's.			9								9
Special agents.....	1, 260 to 1, 500			69								69
Transcribers' plats and records.....	Vari's.			13								13
Clerks, &c., for depredation claims	Vari's.				13							13
Compilers of statistics (per day).....	\$2							2				2
Experts and special agents' assistants.....	Vari's.										16	16
In Geological Survey.....												186
Geologists, from	5 p. d. to 3, 600									9		9
Assistant geologists.....	900 to 1, 800									33		33
Paleontologists	2, 000 to 3, 600									6		6
Assistant paleontologists.....	900 to 1, 800									7		7
Geographer.....	2, 400									1		1
Mechanician.....	2, 100									1		1
Assistant chemists.....	1, 400 to 2, 000									4		4
Topographers	1, 200 to 1, 800									24		24
Assistant topographers.....	720 to 1, 000									37		37
Topographic assistants.....	600									7		7
Draughtsmen.....	600 to 1, 600									10		10
Editor	1, 800									1		1
Disbursing agents.....	1, 200 to 1, 500									2		2
Clerks at.....	1, 000 and 1, 600									7		7
Copyists at.....	700 and 720									2		2
Translator	720									1		1
Assistant photographers.....	1, 200									2		2
Engineer	1, 000									1		1
Firemen	600									2		2
Messengers at.....	420 and 600									2		2
Watchmen	600 and 720									2		2
Skilled laborers.....	600 to 900									15		15
Laborers.....	480 to 720									6		6
Charwomen.....	180									4		4
Total		151	10	468	101	*1, 554	578	41	7	240	58	3, 208

* Of whom about 275 are, or act as, special examiners in the field.

Grand total of officers and employes within the appointment of the Secretary of the Interior, deducting from the foregoing list 24 Presidential appointees (3, 213 — 24), 3, 189.

Miscellaneous departmental officers.—Superintendent of Government Hospital for the Insane; Surgeon-in-Chief of Freedmen's Hospital; Superintendent of the Hot Springs in Arkansas; Supervising Architect and Engineer for new Pension Office Building; Inspector of Fuel for Department of the Interior. Total, 5.

Employés outside the Department proper, not appointed by either the President or the Secretary of the Interior.

Clerks in the 111 district land offices: 10, at \$1,200 per annum; 20, at \$1,000; 1, at \$960; 85, at \$900; 2, at \$600; total, 118.

In the 15 offices of surveyors-generals:	
Clerks, at from \$2,400 to \$500.....	43
Draftsmen, at from \$2,200 to \$900.....	40
Translators, at from \$1,800 to \$1,500.....	3
Calculator, at \$5.50 per day.....	1
Messengers, at from \$900 to \$1,200.....	15
Total.....	162

INDIAN SERVICE.

At the 60 Indian agencies:			
Physicians.....	65	Millers.....	21
Clerks.....	55	Engineers.....	11
Assistant clerks.....	6	Interpreters.....	73
Issue clerks.....	15	Police.....	707
Farmers.....	44	Miscellaneous.....	143
Additional farmers.....	47	Total.....	1,198
Assistant farmers.....	11		

At the 53 reservation schools:			
Superintendents.....	60	Cooks.....	60
Teachers.....	221	Laundresses.....	51
Industrial teachers.....	48	Miscellaneous.....	91
Matrons.....	62	Total.....	648
Clerks.....	2		
Seamstresscs.....	53		

At the 7 training schools:			
Superintendents (not including the 5 appointed by the Secretary).....	2	Seamstresscs.....	11
Teachers.....	38	Cooks.....	7
Industrial teachers.....	12	Laundresses.....	7
Physicians.....	6	Miscellaneous.....	85
Clerks.....	9	Total.....	189
Matrons.....	12		

At the warehouse in New York City: Miscellaneous employés, 2. In the busy season 10 or more persons are employed several months. The grand total of the above, 2,037.

PENSION AGENCIES AND BOARDS OF EXAMINING SURGEONS.

Regular employés at the 18 pension agencies, exclusive of agents.....	175
Temporary employés (employed from one to three weeks during the quarterly payments).....	145
Total employés at pension agencies.....	320
Members of the 547 boards of examining surgeons.....	1,603
Individual examining surgeons.....	689
Grand total.....	2,932

OTHER SERVICES.

In the Geological Survey: Miscellaneous employés at from \$5 to \$150 per month.....	55
Under the Architect of the Capitol: Miscellaneous employés, including 176 unskilled laborers..	240
At the Government Hospital for the Insane: Miscellaneous employés.....	350
At the Freedmen's Hospital: Miscellaneous employés.....	40
Grand total of employés outside the Department proper not appointed by either the President or the Secretary of the Interior.....	5,554

RECAPITULATION.

Officers and employés of the Department of the Interior.

Presidential officers	411
Departmental officers and employés within the appointment of the Secretary of the Interior....	3, 189
Employés outside the Department proper not appointed by the President or the Secretary, viz :	
Clerks in district land offices.....	118
Employés in offices of surveyors-general.....	102
Employés at Indian agencies.....	1, 198
Employés at Indian reservation schools.....	648
Employés at Indian training schools.....	189
Employés at Indian warehouse in New York City.....	2
Employés in pension agencies.....	320
Members of boards of examining surgeons.....	1, 603
Individual examining surgeons.....	689
Employés at Government Hospital for the Insane.....	350
Employés at Freedmen's Hospital.....	40
Employés in Geological Survey.....	55
Employés under Architect of the Capitol.....	240
	5, 554
Grand total number of officers and employés under the Department of the Interior, March 31, 1887	9, 154

OFFICE OF THE SECRETARY.

CHIEF CLERK'S OFFICE.

Report of the chief clerk of the Department of the Interior on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

The statements herewith from the several divisions of the Secretary's office show generally the character and amount of business which comes before the chief clerk of the Department for consideration and proper disposition.

All official mail which is addressed to the Secretary, or the Assistant Secretaries, is delivered to the office of the chief clerk, where the latter, with the aid of one assistant, opens the mail, examines the communications, and sends them to the appropriate division to be briefed, recorded, and acted upon in the manner set forth in the accompanying statements.

When the various official communications have been prepared in the several divisions for the signature of the Secretary, the First Assistant Secretary, the Assistant Secretary, or the chief clerk, they are brought to the chief clerk's office, where they are carefully examined, and if they are found to be correct each communication is initialed by him and placed upon the desks of the Secretary and the Assistant Secretaries for their consideration and signature.

This mail consists of communications in relation to land matters and matters affecting land-grant railroads; the purchase of supplies for the Indians; employés at Indian agencies and Indian schools; Indian moneys; Indian lands; the inspection of the Indian service; appeals in pension and bounty-land cases and concerning fees paid attorneys and agents in such cases; the settlement of the accounts of agents for paying pensions; the admission of attorneys and agents to practice before the Department and its Bureaus; disbarments of attorneys and agents; questions affecting the administration of the Patent Office, the Government Hospital for the Insane, the Freedmen's Hospital, the Columbia Institution for the Deaf and Dumb; certain admissions to the Maryland Institution for the Blind; the construction of the new building for the Congressional Library; requisitions on the Secretary of the Treasury for the issue of warrants in payment for supplies furnished the Indians, repayments for lands erroneously sold, for money to be used in paying pensions, for money to be used in paying indebtedness incurred in the administration of the Department, and for reimbursements on account of the expenses connected with the last illness of pensioners; the settlement of accounts of disbursing agents; expense vouchers of the special agents of the Department and its several Bureaus; contracts for the purchase of stationery and miscellaneous supplies, and also the printing for the Department and its various Bureaus and offices.

All the business set forth in detail in the annexed reports of the divisions of the Secretary's office enters the Department through the office of the chief clerk, and through the same channel it is either forwarded from the office of the Secretary to some Bureau of the Department with instructions for further action, or reply thereto is sent to the party or parties in interest. The large volume of business coming into the chief clerk's office each day requires to be and is dispatched daily, as far as his office can dispose of it.

The chief clerk is *ex officio* superintendent of the Department building, and in the latter capacity is charged with the care of the building and its approaches, supervision of repairs and additions, the proper heating and lighting of the building, and the direct superintendence, with the aid of an assistant superintendent, of the watch force, engineers, firemen, mechanics, messengers, and laborers.

The annual estimates for appropriations for the service under this Department are prepared under the supervision of the chief clerk for the consideration and approval of the Secretary, and all expenditures from the contingent fund and other departmental funds are subject to his management and direction.

It is also the duty of the chief clerk to see that the daily routine work is promptly and efficiently performed and to keep the Secretary informed in relation to the details of the business transacted in the Secretary's office and in the eight bureaus of the Department, each of which is dealing with widely diversified subjects.

In addition to the above general view of the business of the chief clerk's office, it may be remarked that he must be accessible at all times to persons seeking information in relation to business pertaining to any of the offices of the Department.

APPOINTMENT DIVISION.

Report of the appointment division, Secretary's office, on the methods of business and work as requested by Senate Select Committee and called for by Department circular of March 23, 1887.

To the appointment division is committed all business concerning the appointments, promotions, removals, resignations, &c., and charges against the official conduct of all officers and employes of the Department of the Interior who were appointed by the President or the Secretary, whether employed at Washington or elsewhere, together with all the records, files, and correspondence relating thereto; the business pertaining to all leaves of absence and to official bonds; the filing and supervision of time reports of all employes; the notification of the disbursing clerk of changes in the pay of employes; the preparation of executive orders for the location of new or relocation or consolidation of established land offices and Indian agencies, and the preparation of the annual Register of the Department.

The following statement shows in detail the methods of transacting business in the appointment division of the Secretary's office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the appointment division,* and then shows in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party:

Appointment by the President requiring confirmation by the Senate.—The papers of applicants for appointment are filed in jackets, all papers of an applicant for a certain office being filed in the same jacket. When a vacancy occurs, or is expected by expiration of term, a brief of the papers of all applicants for that office is prepared for the Secretary's information.

When the Secretary directs who shall be appointed, a nomination is prepared, recorded, and sent to the President, who, when he has signed it, sends it to the Senate notifying this Department of the date. When the Senate confirms a nomination, the President is notified. He forwards said notice to this Department, and a suitable commission is then prepared, which, when signed by the President and the Secretary of the Interior and impressed with the Department seal, is properly recorded and forwarded to the head of the Bureau under whom the appointee is an officer, unless the appointee is directly under the Secretary. He is then instructed concerning the requisite bond, oath of office, &c.

Should the Senate reject a nomination, the Department is notified through the President and a new nomination must be made.

Appointment by the President during the recess of the Senate.—Such an appointment is made by issuing to the appointee a "temporary" or "recess" commission, good "until the end of the next session of the Senate and no longer," if the office to which he is appointed is one requiring confirmation by the Senate. If so, he must be nominated to the Senate within thirty days after meeting during its next session.

If the office does not, by law, require confirmation, the original commission is sufficient.

Removal from office by the President.—A letter to the officer is prepared stating that he is "hereby removed from the office of —," and, usually, to take effect on the appointment and qualification of his successor.

* Papers for the business of this division are usually received through the chief clerk or from the Secretary.

When said letter has been signed and dated by the President and recorded, it is forwarded to the officer addressed through the head of the bureau under whom he serves, unless he is directly under the Secretary.

(This manner of "removal" superseded the "suspension" under the tenure-of-office act upon its repeal, March 3, 1887.)

Appointment under the Civil Service rules.—(1) Request received from the head of the Bureau in which the vacancy to be filled exists, for a certification by the Civil Service Commission of persons eligible for appointment. This is numbered and recorded, as is each action in the case.

- (2) Said request forwarded to Civil Service Commission for compliance.
- (3) Certification received with examination papers of the persons certified.
- (4) Referred to head of the Bureau whence came request.
- (5) Received back with recommendation for an appointment.
- (6) Secretary's approval secured.
- (7) Letter of appointment prepared, signed, and press-copied.
- (8) Appointment sent to the head of the Bureau in which the appointee is appointed. (Said office notifies the appointee.)
- (9) Notice of appointment sent to Civil Service Commission, returning the examination papers.

(10) Oath of office received.
 (11) Notice to Civil Service Commission of the date said appointment took effect (after appointee has entered on duty).

- (12) Disbursing clerk informed of date on which salary begins.
- (13) Reappointment or dismissal must be made after probation of six months.
- (14) Civil Service Commission must be informed of said reappointment and of any change in the official status of any one who was appointed on its certification.

Official bonds—their examination and approval.—Before the commission of an appointee is delivered to him, if the office is one for which an official bond is required, he is instructed how to prepare his bond, and furnished blanks therefor.

When the bond is received by the head of the Bureau under whom the appointee is to serve, it is examined, and if not satisfactory, returned for correction; but if considered good, is forwarded to the Secretary for approval. In the appointment division it is examined and recorded, and then submitted to the Assistant Secretary for further scrutiny. When approved by the Secretary, it is returned to the head of the Bureau whence it came, who files it with the proper accounting officer of the Treasury Department. If not approved by the Secretary or the Interior, the bond is returned, through the proper Bureau, with the reasons for its disapproval.

After his bond is approved, the appointee is instructed about entering on duty.

A bond is required on both temporary and permanent commissions.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending and undisposed of, at the dates specified below, in the appointment division of the Secretary's office, Department of the Interior :

Character of business.	1884.	1885.	1886.	1887 (to March 1).
Appointments by the President	183	157	292	50
Nominations to the Senate	120	224	166	13
Appointments by the Secretary.....	366	478	606	91
Promotions.....	929	396	558	60
Reappointments after probation.....	1	192	109	34
Resignations accepted, Presidential	27	80	54	5
Resignations accepted, departmental	126	208	188	31
Suspensions, Presidential.....	None.	82	40	None.
Dismissals, departmental	48	339	267	22
Transfers from office to office.....	171	81	32	12
Reductions, reinstatements, and miscellaneous changes	55	147	169	20
New applications for Presidential appointments (each averaging 10 papers, except in 1884, when average was 6 papers) received, jacketed, filed, and indexed	525	3, 632	1, 478	296
Total number of above papers.....	3, 150	36, 320	14, 780	2, 960
New applications for departmental appointments (each averaging 6 papers) received, jacketed, filed, recorded, and indexed.....	835	3, 150	2, 181	644
Total number of above papers.....	5, 010	18, 900	13, 086	3, 864
(NOTE.—Several hundred other papers are received annually from old applicants and filed with original applications.)				
Official bonds examined, approved, and recorded.....	157	208	280	19
Leaves of absence to Presidential appointees received, granted, and recorded	208	174	207	32
Leaves of absence, departmental.....	8, 000	7, 500	7, 500	400
Orders and circulars issued, promulgated, and recorded.....	85	93	88	8
Requests on Civil Service Commission for certifications for appointment	20	23	61	14
Requests for transfer from other Departments	None.	5	15	4
Letters and notices to Civil Service Commission	56	110	343	140

Character of business.	1884.	1885.	1886.	1887 (to March 1).
Certifications received from Civil Service Commission.....	62	28	167	24
Letters transmitting commissions.....	158	299	176	18
Miscellaneous letters sent, press-copied, and copied by hand in permanent record.....	630	474	459	52
Miscellaneous telegrams sent, press-copied, and copied by hand in permanent records.....	37	27	22	None.
Oaths of office received, briefed, and filed.....	240	740	1,152	192
Time reports received and filed monthly.....	264	280	300	50
Time reports received and filed weekly.....	None.	None.	338	135
Reports to disbursing clerk, pages.....	250	307	336	61
Miscellaneous letters received (including charges against officials) briefed, recorded, and indexed, and action thereon noted.....	1,500	3,534	3,278	161

Some of the above figures are only approximately correct, but the estimates were carefully made.

The items for the statement showing the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employés in the appointment division of the Secretary's office, Department of the Interior, cannot be furnished.

The following statement shows the average number of employés in the appointment division of the Secretary's office, Department of the Interior, during the periods specified :

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	6	6	6	6	6	6	6	6	6	6	6	6
1885.....	6	6	6	6	7	7	8	8	8	8	9	9
1886.....	8	7	7	7	7	7	7	7	7	7	7	7
1887 (to March 1).....	7	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

REMARK.—Large increase in applications for appointments.

As to the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified in the appointment division of the Secretary's office, Department of the Interior, see statement below.

In the appointment division no account is kept of the "amount of business transacted and disposed of" by each employé, for the reason that most of the work is of a kind that cannot be adequately indicated by figures. The various branches of work of the division are assigned to certain clerks whose time, when new business is light, is fully occupied by recording and miscellaneous work.

Naturally, much time is occupied by answering inquiries of Senators and Congressmen and applicants for office concerning applications and recommendations, and in making lists of employés, &c.

The work of the division is, generally speaking, completed day by day, excepting the recording of past work, which is always provided for in some satisfactory temporary manner.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the appointment division of the Secretary's office, Department of the Interior :

Calendar year.	Number of employés.	Average number of days present.	Average number of hours employed daily.	Number by proxy.	Remarks.
1884.....	6	273½	*7	None ...	366 days in year; Department closed 59 days; average absence of each employé during year, 32½ days (including sickness).
1885.....	6-9	266	7	None ...	365 days in year; Department closed 63½ days; average absence of each employé during year, 35½ days (including sickness).
1886.....	7-9	262¾	7	None ...	365 days in year; Department closed 60 days; average absence of each employé during year, 42½ days (including sickness).
1887†.....	7	46¾	7	None ...	59 days in the 2 months; Department closed 11 days; average absence of each employé during the 2 months 1½ days (including sickness).

* Office hours, 9 to 4 o'clock, with half an hour for lunch,

† To March 1.

The business of the division frequently requires extra work out of regular hours.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days, in the appointment division of the Secretary's office, Department of the Interior, during the periods specified :

	1884.	1885.	1886.	1887 (to Mar. 1).	Character of business.
Maximum number of days	*294	† 275½	‡ 277	§ 48	Clerical.
Minimum number of days	*242	† 237½	‡ 230	§ 43	Clerical.

* Department open 307 days in 1884.
 † Department open 301½ days in 1885.

‡ Department open 305 days in 1886.
 § Department open 48 days in 1887 (to March 1).

LANDS AND RAILROADS DIVISION.

Report of the lands and railroads division, Secretary's office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the lands and railroads division of the Secretary's office, Department of the Interior.

- Docket of land cases on appeal.
- Approval of land selections.
- Approval of repayment easements.
- Approval of Revolutionary bounty-land scrip.
- Approval of maps of right-of-way railroad companies.
- Approval of articles of incorporation of right-of-way railroad companies.
- Reservation of lands for military, light-house, and life-saving purposes.
- Instructions to commissioners to examine sections of completed land-grant and subsidy railroads, and examination of their reports.
- Recording of railroad company mortgages.
- Timber trespasses on public lands.
- Unlawful fencing of public lands.
- Cases of board for equitable adjudication.

Statement showing in detail the methods of transacting business in the lands and railroads division of the Secretary's office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the Secretary's office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

Land cases on appeal.—When an appeal case is received in this division from the General Land Office it is registered in "Register of letters received," given a file number, and the date of its receipt by the Department and the file number placed upon each paper.

It is then entered in the "Appeal docket," the entry showing the number of the case, its title, the land district where it originated, the names of the attorneys of record, the date and purport of the Commissioner's decision, and date of letter transmitting the case, with date of its receipt. A tag is then attached to the case, on which is written the docket number, when it is filed away to await action by the law officer of the Department and the Secretary.

Cases are sent to the Assistant Attorney-General for the Department for consideration in the order of their receipt, a month's cases going in at a time.

When a case has been considered and the decision written and signed by the Secretary, the decision, with all the papers, except the Commissioner's decision and letter of transmittal, which are filed away, is returned to the General Land Office.

All press copies of decisions are recorded in "Record of letters sent," and all action in cases is noted on the docket in the column of "Remarks."

Timber-trespass cases.—When a timber-trespass case is received in this division from the General Land Office, it is registered in "Register of letters received," given a file number, and the date of its receipt by the Department and the file number placed upon each paper.

The case is then examined and a letter to the Attorney-General prepared, requesting the institution of such legal proceedings as the facts presented seem to require and

justify—sometimes criminal suit for trespass alone, sometimes civil suit alone for the value of the timber involved, and sometimes both. This letter, after being signed by the Secretary, is press-copied and forwarded, with all the papers in the case, to the Department of Justice.

On receipt of a letter from the Commissioner of the General Land Office recommending acceptance or rejection of a proposition of settlement in a timber-trespass case, it is registered as above and the case is examined. If the offer of settlement is accepted a letter to that effect is written, signed by the Secretary, and with the papers sent to the General Land Office, with directions to allow the settlement on payment of the sum named to such officer as he may designate, within the time prescribed. If the offer of settlement is rejected the case is sent to the Department of Justice with a request for institution of legal proceedings, or returned to the General Land Office with a letter setting forth what terms of settlement will be accepted.

On receipt of a communication from the Commissioner of the General Land Office inclosing an offer of compromise sent to him by the Solicitor of the Treasury for a report of his views thereon, a letter, signed by the Secretary, is sent to the Solicitor, forwarding the papers with the Commissioner's report, and giving an expression of his opinion as to whether the compromise offered should be accepted or the legal proceedings go on.

All letters relating to timber-trespass cases are recorded in "Record of letters sent."

Letters from the Department of Justice setting forth that suits in timber-trespass cases have been instituted, after being registered, are referred to the General Land Office, where they remain.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending and undisposed of, at the dates specified below, in the lands and railroads division of the Secretary's office, Department of the Interior :

Character of business.	Pending Jan. 1, 1884.	Received during calendar year 1884.	Transacted and disposed of during calendar year 1884.	Pending Jan. 1, 1885.	Received during calendar year 1885.	Transacted and disposed of during calendar year 1885.	Pending Jan. 1, 1886.	Received during calendar year 1886.	Transacted and disposed of during calendar year 1886.	Pending Jan. 1, 1887.	Received during calendar year 1887.	Transacted and disposed of during calendar year 1887.	On hand, pending and undisposed of, on March 1, 1887.
Applications for repayment of purchase money for lands		1, 254	1, 254		1, 183	1, 183		820	820		145	145	
Lists of swamp-land selections and accounts		105	105		70	70		101	101		17	17	
Lists of State selections		23	23		14	14		8	8		2	2	
Lists of railroad selections		26	26		12	12		14	14		0	0	
Lists of suspended entries		73	73		40	40		18	18		3	3	
Articles of incorporation of right-of-way railroad companies		11	11		10	10		28	28		3	3	
Right-of-way railroad maps		160	160		61	61		269	269		51	51	
Timber-trespass cases		99	99		219	219		249	249		62	62	
Appeals from General Land Office	427	921	*821	527	1, 217	*615	1, 129	1, 841	982	1, 988	326	*187	†2, 127
Unlawful fencing					51	51		35	27	8	16	4	20
Miscellaneous communications		4, 828	4, 828		6, 023	6, 023		6, 417	6, 417		1, 338	1, 338	
Letters written			656			600			1, 318			358	
Land decisions recorded			777			561			934			157	
Miscellaneous letters recorded			1, 123			1, 035			1, 535			398	
Number of pages recorded			4, 985			3, 917			5, 904			1, 021	
Number of pages type written									1, 920			385	
Appeal cases docketed			921			1, 217			1, 841			326	
Report of Commissioner on sections of completed railroads			4			4			2			1	
Railroad company's mortgages recorded			1			2			3				

* Sent to Assistant Attorney-General's room.

† This is the number of appeal cases awaiting action by the Assistant Attorney-General and Secretary, but all this division can do in relation to them in their present condition has been done.

The following statement shows the average amount per month, and character of work done during the periods specified by employes in the lands and railroads division of the Secretary's office, Department of the Interior:

Character of work.	Monthly average each year.			
	1884.	1885.	1886.	1887.
Applications for repayment of purchase money for lands	104.6	98.7	68.4	72.6
Lists of swamp-land selections and accounts	8.9	5.10	8.5	8.6
Lists of State selections	1.11	1.2	.8	1
Lists of railroad selections	2.2	1	1.2	.....
Lists of suspended entries	6.1	3.4	1.6	1.6
Article of incorporation of right-of-way railroad companies	1.1	.10	2.4	1.6
Right-of-way railroad maps	13.4	5 1	22.5	25.6
Timber-trespass cases	8.3	18.3	20.9	31
Appeal cases from General Land Office	76.9	101.5	153.5	163
Unlawful fencing .....	.....	4.3	2.11	8
Miscellaneous communications	402.4	501.11	534.9	669
Letters written	54.8	50	109.10	179
Land decisions recorded	64.9	46.9	77.10	78.6
Miscellaneous letters recorded	93.7	86.3	127.1	199
Number of pages recorded	415.5	326.5	492	510.6
Number of pages type written .....	.....	.....	175	160
Appeal cases docketed	76.9	101.5	153.5	192.6

The following statement shows the actual amount and character of business performed, transacted, and disposed of during the periods specified by the employes in the lands and railroads division of the Secretary's office, Department of the Interior:

Character of business.	Letters received each month of—			
	1884.	1885.	1886.	1887.
January	693	723	759	874
February	764	810	738	1,089
March	721	764	970	.....
April	718	822	905	.....
May	569	777	775	.....
June	543	819	778	.....
July	584	673	894	.....
August	602	647	779	.....
September	559	656	769	.....
October	555	712	871	.....
November	518	716	788	.....
December	674	781	774	.....
Total	7,500	8,900	9,800	1,963

The following statement shows the number of employes in the lands and railroads division of the Secretary's office, Department of the Interior, during the periods specified:

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884	3	3	3	3	3	3	3	3	3	3	3	3
1885	3	3	3	3	3	3	3	3	3	3	3	*4
1886	4	4	4	4	4	4	4	4	4	4	4	4
1887 (to March 1)	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* Additional clerk detailed, December 11, 1885.

As to the statement called for showing the maximum and minimum amount of business transacted and disposed of by the employe doing the most and the employe doing the least during the periods specified in the lands and railroads division of the Secretary's office, Department of the Interior, the records of the division have not

been kept so as to show this comparison, nor can they be; nor is the character of the work done by each employé such as to admit thereof.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the lands and railroads division of the Secretary's office, Department of the Interior:

Calendar year.	No. of employés.	Average No. of days present.	Average No. of hours employed daily.	No. by proxy.
1884.....	3	277 ¹	7	(*)
1885.....	3	287 ¹	7	0
1886.....	4	269 ¹	7	0
1887 (to March 1).....	4	44 ¹	7	0

* No record kept for this year.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the lands and railroads division of the Secretary's office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to Mar. 1).
Maximum number of days.....	277	301 ¹ ₁₂	270	48
Minimum number of days.....	276	123 ¹	261	38

* Mr. McMurray appointed August 1, 1885.

[*Note by Committee:* The statement showing the duties of each employé in the lands and railroads division of the Secretary's office is not deemed important, and is not printed.]

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, April 14, 1887.

SIR: In obedience to Department circular of the 23d ultimo, I have the honor to submit the foregoing report from the lands and railroads division of your office, requested by the Select Committee of the Senate appointed in pursuance of the resolution of that body adopted March 3, 1887, "to inquire into and examine the methods of business and work in the Executive Departments of the Government," &c.

The report is as full as it can conveniently be made, and is prepared in accordance with the blanks furnished, as far as the records of the division will afford the information desired. Some additional information is given, which, it is thought, may be useful.

The work of this division is kept up to date uniformly, never being at any time more than a few days behind; but in order to do this the chief of the division works from one to two hours extra nearly every day, and sometimes the other employés work extra hours.

Very respectfully,

JOHN McMURRAY,
Chief of Lands and Railroads Division.

The SECRETARY OF THE INTERIOR.

BOARD OF PENSION APPEALS.

Report of the board of pension appeals, Secretary of the Interior's office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing in detail the methods of transacting business in the board of Pension appeals division of the Secretary's office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the ——— office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereon duly given to the proper party.

Applicants for pensions and land warrants for military service performed, feeling aggrieved at the action of the Commissioner of Pensions, for any cause, in rejecting their claims, have the right of an appeal to the Secretary of the Interior.

The business of the boards of pension appeals is transacted as follows:

Upon the receipt of an appeal from the Commissioner of Pensions in a claim for pension or bounty land, the same is prepared for reference to the Commissioner of Pensions by the secretary of the board, who enters upon the appeal docket the name of the appellant, the name and service of the soldier on whose account the claim is made, the date of the receipt of the appeal, and, if an attorney is employed in the case, his name is given upon the docket. The date of the receipt of the appeal is noted on the docket. The appeal is numbered, and is referred to the Commissioner of Pensions, with a request, over the signature of the Assistant Secretary of the Interior, for a report of the grounds of the action of the Pension Office in the case, such report to be forwarded to the Secretary of the Interior with the papers in the claim. The receipt of the appeal is acknowledged by letter to the appellant.

Upon receipt of the report of the Commissioner of Pensions upon the appeal, with the papers, the receipt of the same is noted upon the docket. The secretary of the boards prepares letters for the signature of the Assistant Secretary, answering all inquiries in regard to cases upon appeal and other inquiries concerning the business of the Secretary of the Interior in relation to pensions and bounty land.

There are nine members of the board of appeals, and they are divided into three boards of three members each.

Cases are taken up for consideration in the order of the date of appeal. When the members of the board have considered the evidence and the law bearing upon the case, the opinion of the board, or of a majority of the board, is prepared for the signature of the Assistant Secretary. If there be a difference of opinion as to the action which should be taken in the case, the Assistant Secretary is informed of the fact that a member of the board dissents from the opinion written up for the majority of the board. If the Assistant Secretary should concur with the dissenting member of the board, the case is by him returned to be written up in accordance with his opinion. If he should differ with all the members of the board, an opinion in accordance with his view is prepared.

There are two type-writers connected with each board. They are employed in printing with the type-writer all opinions for the signature of the Secretary or Assistant Secretary, and all briefs of evidence in cases in which a printed brief is deemed necessary, and all letters relating to questions concerning pensions which come before the office of the Secretary of the Interior.

The opinions of the Secretary upon cases on appeal are directed to the Commissioner of Pensions, and the papers in the case are returned therewith. The Commissioner informs the appellant of the purport of the decision in his or her case.

The action of the Department upon the appeal is noted upon the appeal docket. A copy of the decision is taken, to be preserved among the records of the office of the Secretary of the Interior for future reference.

[*Note by Committee*: The following table was substituted for the four separate tables as given in report:]

Amount and character of business on hand, received, and disposed of in the board of pension appeals, division of the office of the Secretary of the Interior, at the times named:

Pending Jan. 1, 1884.....	526	Received during 1886.....	2,874
Received during 1884.....	2,148	Disposed of in 1886.....	1,652
Disposed of in 1884.....	1,446	Pending Jan. 1, 1887.....	3,894
Pending Jan. 1, 1885.....	1,228	Received up to Mar. 1, 1887.....	400
Received during 1885.....	2,621	Disposed of up to Mar. 1, 1887.....	746
Disposed of in 1885.....	1,177	On hand pending Mar. 1, 1887.....	3,548
Pending Jan. 1, 1886.....	2,672		

The following statement shows the average number of employés in the pension appeals division of the Secretary's office, Department of the Interior, during the periods specified :

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....							5	5	6	6	6	6
1885.....	6	6	6	6	6	6	6	6	6	6	6	6
1886.....	9	10	10	10	10	10	10	10	10	15	26	27
1887 (to March 1).....	28	28	28									

INDIAN DIVISION.

Report of the Indian division, Secretary's office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
Washington, May 12, 1887.

SIR: In compliance with Department circular of March 23, 1887, I have the honor to submit herewith detailed statement showing the method of transacting business in the division of Indian affairs, office of the Secretary of the Interior; also detailed statements "showing the amount and character of business" pending, received, transacted, and disposed of during the periods specified, together with other statements called for in the two letters from the chairman of the Senate Select Committee, appointed to inquire into and examine the methods of business and work in the Executive Departments.

I have the honor to be, very respectfully,

R. V. BELT,
Chief Indian Division.

The SECRETARY OF THE INTERIOR.

Statement showing the principal items of business transacted in the Indian division of the Secretary's office, Department of the Interior.

1. Matters relating to Indian lands :

- (a) Rights of Indians to lands.
- (b) Intruders and trespassers upon Indian lands.
- (c) Negotiations, &c., relative to cessions of Indian lands.
- (d) Creation, discontinuance, &c., of reservations for Indian occupancy.
- (e) Deeds and other conveyances of Indian lands.
- (f) Instructions for surveys, allotments, &c., of Indian lands.
- (g) Questions concerning leases, contracts, &c., affecting Indian lands.
- (h) Rights of railroads, canals, &c., upon Indian lands.
- (i) Projected legislation affecting Indian lands.
- (k) Construction of treaties and laws relating to Indian lands.
- (l) Cattle grazing upon Indian lands.
- (m) Mining and logging operations upon Indian lands.

2. Matters relating to Indian moneys :

- (a) Construction of treaties on questions of annuities.
- (b) Questions as to how annuities, &c., should be expended.
- (c) Keeping account of bonds and stocks in which Indian trust funds are invested and questions relating thereto.
- (d) Contracts with Indians for professional services in claims, &c.
- (e) Projected legislation regarding Indian annuities.

3. Matters relating to the conduct of Indians :

- (a) Outbreaks and disorders among and by Indians.
- (b) Crimes committed by Indians.
- (c) Depredations by Indians and consideration of claims therefor.
- (d) Industrial employment of Indians.

4. Matters relating to the support of Indians :

- (a) Construction of laws authorizing expenditures for Indian supplies, &c.
- (b) Authorities for the making of contracts for Indian supplies, transportation, &c.
- (c) Examination of contracts for Indian supplies, &c.
- (d) Authorities for open-market expenditures for Indian supplies, &c.
- (e) Authorities for service of employés in the Indian Department.

5. Matters relating to Indian education, schools, &c. :
 - (a) Location and construction of Indian school buildings.
 - (b) Contracts for conducting Indian schools, &c.
 - (c) Inspection of Indian schools, &c.
 - (d) Examination of reports of inspection by Indian school superintendent.
6. Inspection of the Indian service :
 - (a) Preparation of instructions for investigation of Indian ageneies, schools, &c.
 - (b) Examination of reports of Indian inspectors, &c.
 - (c) Examination of accounts of Indian inspectors.
7. Miscellaneous matters of Indian service :
 - (a) Numerous and perplexing, requiring much time for examination, searching of records, files, &c.

Statement showing in detail the methods of transacting business in the Indian division of the Secretary's office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the Secretary's office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

Business matters relating to Indian Affairs, submitted to the office of the Secretary of the Interior, are recorded, examined, considered, and prepared for action in the division of Indian Affairs of the Secretary's office.

Such business matters come to the division from the Secretary, the Assistant Secretaries, the chief clerk, and from individuals. They are first examined by the chief of the division to ascertain their contents, importance, &c., and for notation thereon of any special directions considered necessary for proper preparation of the necessary correspondence. They are then briefed, entered, and indexed by the clerk of class 3, upon the "Register of Letters Received;" thence they are passed to the desks of the corresponding clerks for examination and preparation of the rough drafts of the necessary correspondence. The corresponding clerks are the chief of the division, the clerk of class 4, and the clerk of class 2.

All drafts of letters, statements, &c., prepared, are written out by the clerk of class 1 on the type-writing machine, before being laid before the Secretary or the Assistant Secretaries for final consideration and signature.

As a general rule the correspondence prepared each day, after being examined and initialed by the chief of the division, is taken to the room of the chief clerk of the Department, where it is reviewed and passed to the First Assistant Secretary or the Assistant Secretary, as the case may be, by whom it is considered, and, when approved, is signed or passed to the Secretary for final consideration and signature. When approved and signed it is returned by the chief clerk to the division where it is press-copied and sent off to proper destinations by mail or messenger.

The letters prepared on many important and urgent matters are taken directly by the chief of the division to the Secretary or Assistant Secretaries for consideration and signature.

The correspondence is transcribed from the press-copy book into the permanent "Record of Letters Sent," and indexed by the copyist.

It is a general rule, well and cheerfully observed by the employés of this division, that the business matters of each day must be disposed of, so far as practicable, before they leave their desks for the day.

The following are sample items of principal business matters transacted in the Indian division, office of the Secretary, Department of the Interior :

ITEM NO. 1.—Subject: Construction of Maricopa and Phoenix Railroad through the Gila River Reservation in Arizona.

(No. 1.)

Nov. 27, 1887.—The chief of the Indian division brought to the attention of the Secretary of the Interior a statement in the annual report of the governor of Arizona for the year 1886, under subject of railroads, viz: "That there is now under construction a road from Maricopa Station, on the Southern Pacific, via Tempe to Phoenix." As on the route indicated the railroad would traverse a portion of the Gila River Reservation, the Secretary directed that the Commissioner of Indian

Affairs make inquiry of the agent for the Pima Agency whether said road is being constructed within said reservation, and, if so, by what authority.

[This letter to the Commissioner was prepared by the chief of the Indian division, copied by clerk of class 1 on type-writer, sent to the chief clerk, read by him and passed to and signed by the Secretary (Hon. D. L. Hawkins, acting); press-copied, recorded, and indexed from press-copy book, by copyist; noted on messenger's receipt book by clerk of class 2, taken by messenger to office of Assistant Commissioner of Indian Affairs, and receipted for November 28, 1886.]

(In all subsequent action noted below as taken on this matter of business in the division of Indian Affairs, office of the Secretary of the Interior, it passed through the hands of the same employes and officers as designated above, except when otherwise stated.)

(No. 2.)

Nov. 28, 1886.—Received by Assistant Commissioner of Indian Affairs, sent to the division of files and records, where it was briefed, registered, and indexed and referred to the appropriate division,—in this case the land division of the Indian office—where it was perused by the chief of that division, registered by clerk of class 1 in the division register, and assigned to clerk of class 4 having charge of railroad matters, for action, who examined the matter December 1, 1886, and prepared draft of instructions to the resident agent, which he submitted to chief of division for inspection; then it was copied by a copyist on type-writer; examined with clerk who prepared the draft; examined and initialed by chief of division; read and initialed by Assistant Commissioner, and presented to Commissioner for signature; returned, approved and signed; press-copied by a copyist, and mailed by clerk of class 4, who noted action on original communication and handed it to registry clerk, who entered action on division register and filed papers.

(In all subsequent action noted below as taken in the Indian Office on this matter of business, it passed through the hands of the same employes and officers, substantially, as designated above, except where otherwise stated.)

(No. 3.)

Nov. 29, 1886.—Agent of Pima Agency writes to the Commissioner of Indian Affairs that white men are camped on reservation and clearing for right of way for railroad, and asks instructions.

(No. 4.)

Dec. 9, 1886.—Commissioner inclosed copy of agent's letter, for information of Department, and referring to failure of Congress to enact appropriate pending legislation prior to adjournment, asks further instructions.

(No. 5.)

Dec. 10, 1886.—Received by chief clerk of the Department and sent to the Indian division, same date; chief of division, after consultation with Secretary, prepared the reply, directing the Commissioner of Indian Affairs to instruct the Pima agent to warn all persons engaged in locating or constructing a railroad thereon to leave the reservation at once, and not to permit them to proceed with the work in which they may be engaged until proper authority therefor shall have been granted. (This letter was signed by the Secretary, Hon. H. L. Muldrow, acting.)

(No. 6.)

Dec. 13, 1886.—Assistant Commissioner of Indian Affairs telegraphs agent in accordance with Department instructions.

(No. 7.)

Dec. 15, 1886.—Commissioner of Indian Affairs receives telegram from agent, stating that instructions will be carried out.

(Filed with papers in the case.)

(No. 8.)

Jan. 6, 1887.—The President transmits to the Department for examination and report as to whether any objections exist to its approval, H. R. 9736—"To grant the Maricopa and Phoenix Railroad Company the right of way through the Gila River Reservation."

(No. 9.)

Jan. 6, 1887.—Received by the chief clerk Interior Department, and sent to miscellaneous division, where it was registered by clerk of class 4, and referred to the Commissioner of Indian Affairs, on the same day, for report.

(No. 10.)

Jan. 11, 1887.—Commissioner of Indian Affairs returned enrolled bill to the Department, with letter stating that he knows of no objection to its approval.

(No. 11.)

Jan. 12, 1887.—Received, registered, and indexed as in No. 9. Letter to the President returning enrolled bill prepared by chief of miscellaneous division, copied by typewriter, signed by the Secretary, press-copied, and sent by messenger to Executive Mansion.

(No. 12.)

Jan. 18, 1887.—Agent of Pima Agency telegraphed Commissioner of Indian Affairs that grading was being done on reservation, and asks for assistance of military to drive off the intruders.

(No. 13.)

Jan. 19, 1887.—Preceding paper forwarded by the Commissioner to the Department; referred to Indian division where, on verbal instructions from Secretary, telegram was prepared.

(No. 14.)

Jan. 19, 1887.—To the president of the Maricopa and Phoenix Railroad, requiring him to discontinue work and withdraw from the reservation at once all persons unlawfully thereon, until location of road shall be approved by this Department, and consent of Indians is obtained, satisfactory to the President of the United States, as required by the recent law (enacted January 17, 1887) granting right of way.

[Signed by the Secretary of the Interior and given to telegraph operator, Interior Department. Copy made which, with telegram of Pima agent, was returned to Commissioner of Indian Affairs same day.]

(No. 15.)

Jan. 19, 1887.—Received by the Commissioner of Indian Affairs, who informed agent by telegraph, same date, of action taken by the Department.

(No. 16.)

Jan. 21, 1887.—Senator Stanford files telegram from Mr. Towne, urging that the Maricopa and Phoenix Railroad Company be allowed to go on with the construction of road on right of way through Gila River Reservation.

[This telegram was handed by the Secretary of the Interior to the chief of Indian division, with instructions to prepare answer.]

(No. 17.)

Jan. 21, 1887.—To Senator Stanford, calling attention to provisions of act requiring ascertainment of damages, filing of maps of definite location, &c., before work begun, and saying that the railroad company should proceed in the way and manner clearly prescribed by the law granting the right of way.

(Signed by the Secretary of the Interior and mailed to Senator Stanford.)

(No. 18.)

Jan. 21, 1887.—Hon. C. C. Bean filed in Indian Office three telegrams from vice-president of the railroad company which, in view of the action taken by the Department January 19, did not appear to call for any reply,

(No. 19.)

Jan. 22, 1887.—A telegram, dated January 21, 1887, was received from the chief engineer of the Maricopa and Phoenix Railroad, dated at Maricopa, Ariz., asking whether map of location filed before passage of the law will not be accepted, and stating that work has been stopped, &c., as required.

(No. 20.)

Jan. 22, 1887.—Reply (telegram) prepared, stating Department's appreciation of readiness and promptness of company's compliance with instructions; that an old map of proposed road is on file in Indian Office, and the company should give notice that said map is now filed as representing definite location of the road if that be so, and that the Commissioner of Indian Affairs has been instructed to direct the agent to lay the matter of right of way before the Indians and to report on compensation, as required by law. (Signed by the Secretary.)

(No. 21.)

On the same day, January 22, the telegram of chief engineer of the railroad, with copy of Department reply, was sent to the Commissioner of Indian Affairs, with directions to instruct the agent to proceed as indicated by Department action.

(No. 22.)

Jan. 22, 1887.—Received by the Commissioner of Indian Affairs, who telegraphed the agent that detailed instructions will be sent him by mail.

(No. 23.)

Jan. 25, 1887.—Commissioner of Indian Affairs instructed agent to lay the matter before the Indians in council, and in the event of their assent, to ascertain and report upon the question of damages to individual Indians, as provided for in the act.

Forms of papers to be used for the consent of Indians, and appraisement of damages, &c., prepared by clerk of class four, copied on type-writer, examined, initialed, signed, press-copied, and mailed, as noted in No. 2.

(No. 24.)

Jan. 28, 1887.—Commissioner of Indian Affairs received letter from Pima agent, explaining situation and saying that railway company only quitted reservation after being threatened with forcible removal, notwithstanding Department telegram of 19th instant.

(This letter was received in Indian Office on January 28, 1887, was duly registered and referred, as in No. 2, but in view of action taken by that office on January 25, did not appear to require action, and it was therefore filed.)

(No. 25.)

Jan. 24, 1887.—Secretary received telegram from chief engineer Maricopa and Phoenix Railroad, dated January 23, 1887, saying that map in Indian Office is filed as map of definite location, and asks if consent of Indians on file cannot be accepted.

Referred to Commissioner of Indian Affairs for report, signed by Secretary (Hon. H. L. Muldrow, acting).

(No. 26.)

Jan. 25, 1887.—Commissioner of Indian Affairs replies to Department that chief engineer is under misapprehension as to formal consent of Indians being on file in Department, and explains what really is on file, and that the act specially requires the consent of the Indians to be obtained in a manner satisfactory to the President before any appropriation of lands by railway company; also that agent has been fully instructed.

(Report received in Department, sent to Indian division January 26, 1887, registered, indexed, and filed.)

(No. 27.)

Jan. 22, 1887.—Department received telegram from Hon. George Hearst, San Francisco, Cal., requesting authority for Maricopa and Phoenix Railroad to proceed with the construction of their road through the Gila River Reservation.

(This was handed to chief of Indian division January 28 by Secretary of Interior, and was registered, indexed, and filed.)

(No. 28.)

Jan. 24, 1887.—Maricopa and Phoenix Railroad Company ask Department that consent of Indians on file be accepted and permission be granted to go on with the work.

(Received January 31, 1887, and referred to the Commissioner of Indian Affairs.)

(No. 29.)

Received by the Indian Office January 31, 1887. No action taken pending result of agent's negotiation with Indians other than to register, and file with papers in the case.

(No. 30.)

Feb. 1, 1887.—Letter received by Department from Maricopa and Phoenix Railroad Company, refiling maps of location of road.

(Received, registered, and indexed, and referred to the Commissioner of Indian Affairs, Feb. 1, 1887.)

(No. 31.)

Received by Indian Office February 2, 1887. Filed. For action see Indian Office report to Department, February 19, 1887.

(No. 32.)

Feb. 6, 1887.—Pima agent telegraphs to Commissioner of Indian Affairs that Indians in council have consented, and that appraisement will be made forthwith. Filed.

(No. 33.)

Feb. 8, 1887.—Commissioner of Indian Affairs telegraphs agent to mail consent of Indians to his office at once.

(No. 34.)

Feb. 9, 1887.—M. R. Locke & Co., contractors, filed letter asking Department authority to proceed with the construction of the Maricopa and Phoenix Railroad.

(No. 35.)

Feb. 10, 1887.—The Department replied, declining to grant authority until provisions of law were complied with. (Signed by Acting Secretary Muldrow.)

(No. 36.)

Feb. 16, 1887.—Commissioner of Indian Affairs again telegraphs agent to forward consent of Indians.

(No. 37.)

Feb. 14, 1887.—Agent transmits several newspaper clippings criticising his action in the case. Articles examined, considered, and filed by clerk of class four having charge of the case, on further action being deemed necessary by Land division, Indian Office.

(No. 38.)

Feb. 18, 1887.—M. R. Locke & Co., contractors, write to Department asking authority to go upon Gila River Reservation and construct bridge over said river.

(Referred to Commissioner of Indian Affairs February 21, 1887.)

(No. 39.)

Feb. 25, 1887.—Received in Indian Office after report of February 19, next mentioned, had been made. Registered and filed.

(No. 40.)

Feb. 20, 1887.—Agent telegraphs Commissioner of Indian Affairs that papers were forwarded on 12th instant.

(No. 41.)

Feb. 20, 1887.—Agent telegraphs Commissioner that interpreter's certificate, omitted to be attached to the papers sent, had been forwarded by him that day.

(No. 42.)

Feb. 19, 1887.—Papers having in the mean time arrived, Commissioner Indian Affairs transmits them, viz, minutes of council and memorandum signed by chiefs and headmen, containing consent of Indians, descriptive list, and appraisement of damages to individual Indians; certified abstract from minutes of meeting of board of directors, directing the refiling of map of definite location, with the map itself, and recommends approval thereof, and that company be authorized to proceed with construction of road upon the reserve, subject to a due observance of the requirements of the act in regard to the payment of damages assessed as per schedule of appraisement.

Same general process in Indian Office as before noted, including examination of all inclosures to see that they were properly executed and certified.

(No. 43.)

Feb. 19, 1887.—Received by the Department, registered, and the chief of Indian division prepared Department letter to the President requesting his approval of the consent of the Indians to the right of way.

Signed by the Secretary of the Interior, sent by messenger to Executive Mansion, and receipted for February 19, 1887.

(No. 44.)

Feb. 19, 1887.—The President indorsed his approval on the papers, which were, on February 21, 1887, returned to the Department, and were on same date returned to the Commissioner of Indian Affairs, approving the appraisement of damages to improvements and maps of definite location, and authorizing the company to proceed with the construction of its road; directing, however, that the company be called upon to file its consent to the provisions of the act granting the right of way, if not already done, and to file bond provided for in section 3 of said act. Letter prepared by corresponding clerk of Class IV, and signed by the Secretary.

(No. 45.)

Feb. 24, 1887.—Upon receipt of foregoing instructions, Commissioner telegraphs agent that all preliminaries arranged, and that railway company may proceed with construction.

(No. 46.)

Feb. 24, 1887.—Commissioner of Indian Affairs incloses copy of Department letter of 21st instant to Mr. Locke, contractor for the road (present), and informs him that agent had been instructed by telegram as above.

(No. 47.)

Feb. 26, 1887.—Commissioner transmits copy of Department letter of 21st instant, and returns approved schedule of appraisement to agent, with instructions to co-operate with company officers in settlement of damages, to obtain receipts from the Indians, and to return the schedule with the fact of payment duly certified.

(No. 48.)

Feb. 26, 1887.—Commissioner transmits copy of Department letter of 21st instant to C. S. Masten, vice-president and chief engineer of the railway company, with copy of approved schedule of appraisement of damages to individual occupants, amounting to \$707.90, and requests him to make early appointment with agent to settle with Indians; also forwards form of bond in \$10,000, in conformity with the act, for execution and acknowledgment by proper officer of the company, and two sureties, and for return with certified copy of resolution of board of directors authorizing such execution and accepting provisions of the act.

(No. 49.)

Feb. 28, 1887.—Interpreter's certificate to be attached to papers received in Indian Office from Agent Howard.

Registered, indexed, and filed as in No. 7.

(No. 50.)

Mar. 7, 1887.—Maricopa and Phoenix Railroad Company acknowledges receipt of papers received from Commissioner of Indian Affairs on 26th ultimo, and have arranged to meet the agent at an early date and disburse amounts awarded to Indians; also states will forward bond duly executed as soon as quorum of board of directors assemble.

(No. 51.)

Mar. 28, 1887.—Agent returns schedule of appraisement with his certificate of payment of amounts awarded to Indians attached.

(No. 52.)

Apr. 9, 1887.—Department received letter from Maricopa and Phoenix Railroad Company, dated April 3, 1887, filing indemnity bond in \$10,000, as required by section 3 of act granting right of way.

Referred to the Commissioner of Indian Affairs April 9, 1887.

(No. 53.)

Apr. 11, 1887.—Received in Indian Office; examined by clerk of class IV, in land division, where it was found incomplete, by reason of absence of United States official's certificate as to sufficiency of sureties, and letter was prepared and signed by Assistant Commissioner of Indian Affairs returning same to vice-president of railway company to be perfected.

(No. 54.)

May 2, 1887.—Bond perfected and refiled by the Maricopa and Phoenix Railroad Company; examined and submitted by Acting Commissioner of Indian Affairs to Department for approval in accordance with the requirements of the act.

(No. 55.)

May 12, 1887.—Received by the Department, considered, approved, and returned to Indian Office for file.

ITEM No. 2.—Subject: Allotment of lands in severalty to Indians on the Santee Reservation in Nebraska.

Jan. 29, 1885.—The Commissioner of Indian Affairs submitted report from United States Indian Agent Lightner, Santee Agency, Nebraska, recommending allotments of lands to Indians on Santee Reservation and the restoration of unallotted and unreserved lands to the public domain, in which the Commissioner concurs and incloses for consideration of the Department draft of an Executive order for approval by the President necessary to carry out the recommendation.

Received by chief clerk of the Department; taken by him to the Secretary of the Interior, who indorsed it "Approved, H. M. Teller," and handed the papers to the chief of the Indian division; registered and indexed by clerk of Class III; examined with reference to the laws and treaties bearing thereon by chief of division, who submitted a report (copied on type-writer by clerk of Class I) to the Secretary for his information. The papers were returned to the division by the Secretary, and

Feb. 9, 1885.—A letter prepared to the President approving the Commissioner's recommendation and requesting the issuance of the proposed Executive order.

Letter drafted by clerk of Class IV; examined by chief of division; copied on type-writer by clerk of Class I; sent to the chief clerk; signed by the Secretary; press-copied; noted in receipt-book, and receipted for February 9, 1885. Letter recorded and indexed by copyist.

NOTE.—In all subsequent action noted below as taken on this matter of business in the division of Indian affairs, office of the Secretary of the Interior, it passed through the hands of the same employés and officers as designated above, except where otherwise stated.

Feb. 10, 1885.—Executive order returned by the President, with his signature appended thereto, February 9, 1885.

Feb. 11, 1885.—Letter to Commissioner of Indian Affairs, inclosing the Executive order, and a letter to the Commissioner of the General Land Office, inclosing a copy of said order for file.

Feb. 13, 1885.—Letter to Commissioner of Indian Affairs, instructing him to have the necessary allotments made to Indians on the Santee Reservation in Nebraska.

Feb. 16, 1885.—Received by chief clerk of Indian Office and sent to division of files and records, where it was briefed, registered, indexed, and sent to land division on same day, where it was read by chief of division, charged to clerk of Class II, handed to registering clerk, class \$1,000, by whom it was registered, indexed, and handed to clerk of Class II, by whom, on February 16, 1885, a rough draft of letter to Agent Lightner, of Santee Agency, was prepared, transmitting copy of Executive order of February 9, 1885, and giving full instructions relative to making allotments, written out on type-writer by clerk of class \$1,000, compared, read, and approved by chief of division, read and approved by chief clerk, read and signed by Commissioner, returned to land division, copied in letter-press book, put in envelope by clerk of Class II, and placed in mail bag.

In all subsequent action noted below as taken on this matter of business in the Office of Indian Affairs, it passed through the hands of the same employés and officers as designated above, except where otherwise stated.

Mar. 9, 1885.—Agent Lightner informed as to construction of act of March 3, 1863, relative to allotments to these Indians, in response to an inquiry made February 25, 1885.

Hon. C. F. Manderson, March 22, 1885, and Hon. G. W. Dorsey, March 27, 1885, respectively, forwarded elaborate brief prepared by Hon. S. Draper, taking the ground that the allotments which the agent had been instructed to make were illegal.

Apr. 11, 1885.—A letter was prepared to Hon. C. F. Manderson, giving history of reservation and asserting rights of Indians to allotments as contemplated by the instructions to agent of February 16, 1885.

Apr. 14, 1885.—A letter was written to Hon. G. W. Dorsey transmitting copy of above letter.

Apr. 18, 1885.—Duplicate schedules of allotments and selections, certified and transmitted by Agent Lightner, together with duplicate township plats, showing the locations.

Schedules were examined and entered in tract-book, carefully compared.

Apr. 27, 1885.—Schedules transmitted to Secretary with the report upon the brief prepared by Hon. S. Draper.

May 1, 1885.—Report made to Secretary upon appeal of Senator Manderson from decision of Indian Office as communicated to him April 11, 1885.

May 1, 1885.—The schedules presented by the Commissioner of Indian Affairs were submitted to the President for his approval, with full explanations in the case.

May 1, 1885.—Department letter, signed by H. L. Muldrow, Acting Secretary, was written to the Commissioner of Indian Affairs, stating that the question had been raised as to the propriety of the restoration to the public domain of any portion of the Santee Sioux Reservation, and as to the power of the President to restore to the public domain any portion of said lands, and requesting an early report of the views of the Commissioner and recommendations on the subject.

May 2, 1885.—Indian Office replied, giving history of reservation, and saying it had no doubt as to the right of the Executive to restore the surplus lands, nor as to the propriety of such action.

May 11, 1885.—The President returned the schedules of allotments to this Department with his approval indorsed thereon.

May 12, 1885.—Schedules approved by the President were transmitted to the Commissioner of Indian Affairs for further action preliminary to their transmittal to the General Land Office for proper action of that office,

May 12, 1885.—The Commissioner of Indian Affairs returned to the Department for the information and action of the General Land Office, schedules of selections for Santee Sioux Indians, and a schedule showing lands within Santee Sioux Indian Reservation, which were restored to the public domain by Executive order of February 9, 1885.

May 12, 1885.—Schedules were transmitted by the Department to Commissioner General Land Office for proper action in patenting said lands, &c.

Received in the General Land Office, chief clerk's division (A), and sent by the chief clerk to the registering room, where the letter was briefed, numbered, and registered. They were then sent to the chief of the division of public lands (C), who turned the matter over to the clerk in charge of the Nebraska section in his division. Four clerks in said section were immediately put to work to note, on what is called a "tract-book," the lands selected for and assigned to the different Indians named in the schedules. These notes show what part of the section, township, and range in said reservation was selected and assigned to each Indian, under what law, the area, the name of the Indian, the number of the selection or assignment, and the date the list was approved by the President.

May 8, 1885.—The local land officers at Niobrara, Nebr., were furnished by letter, prepared in same division (C) and signed by the Commissioner of the General Land Office, with rules and regulations to govern them in allowing entries and filings on said reservation of land not selected or allotted.

May 12, 1885.—Copies of the schedules were prepared in same section and division (C), and forwarded same day to the local land officers at Niobrara, Nebr. This was done to enable them to ascertain what lands not selected by or allotted to Indians were subject to entry under the homestead, pre-emption, and timber-culture laws.

July 1, 1885.—The papers forwarded by the Department were sent to "private land claims division" (D), where 137 patents have been prepared and issued, and where others are being issued from time to time as fast as necessary proof is received.

ITEM No. 3.—Subject: Open market purchase of supplies for the Indian service.

March 10, 1885.—The Commissioner of Indian Affairs submitted a request based upon a letter of the agent of the Warm Springs Indian agency, Oregon, that said agent be allowed to expend \$500 in the open-market purchase of beef required for school at said agency.

Received at the Department and sent by the chief clerk to the division of Indian Affairs March 11, 1885, handed by the chief of the division to clerk of Class III, who recorded the request upon the "register of letters received," and passed to clerk of Class II, for examination and for preparation of draft of necessary correspondence, which, when prepared, was handed to the type-writer and by him copied on type-writing machine. It was then handed to the chief of the division for examination, and from him it was taken to the chief clerk of the Department, who passed it to the First Assistant Secretary for consideration and signature. After being signed, it was returned to the chief clerk, and thence to the division of Indian Affairs, where it was press-copied by clerk of Class I, and sent by messenger to the office of the Assistant Commissioner of Indian Affairs, where it was receipted for March 12, 1885.

The letter was transcribed by copyist from press-copy book into the Department "record of letters sent."

ITEM No. 4.—Subject: Inspection of condition of Cheyenne Indians on Tongue River, Montana.

July 5, 1884.—Department telegraphed United States Indian Inspector Barr, that cattlemen complain that Northern Cheyennes on Tongue River are destitute, and committing depredations on their herds. He was instructed to proceed to that locality, investigate fully, and report.

[This telegram was prepared under direction of the Secretary of the Interior, by chief of Indian division, copied by copyist on type-writing machine, signed by the Secretary, press-copied by clerk of Class II, and handed to telegraph operator in the Department. Telegram recorded upon "record of letters sent" and indexed by clerk of Class I.]

Aug. 2, 1884.—Inspector Barr made full report in accordance with above instructions, which was received on August 11, 1884. Found Indians poor, but quiet, feeling neglected by the Government and wronged by the cattlemen, but had made no threats, and he saw no indications of an outbreak. Was unable to find any positive proof of depredations by Indians, except in one case in 1882.

This report was received, registered, indexed, and synopsis drawn off by clerk of Class III, which was copied by type-writer and press-copied in book kept for that purpose, and then submitted for the consideration and directions of the Secretary of the Interior, who, on—

Aug. 12, 1884, in view of the statements by Inspector Barr, authorized the Commissioner of Indian Affairs to purchase, in open market, beef and flour to extent of \$3,000 to relieve the pressing necessities of these Indians.

[This letter was prepared by direction of the Secretary of the Interior and chief of division by clerk of Class-III, copied by type-writer, signed by the Secretary, press-copied, &c., as in previous action, and taken to office of Commissioner of Indian Affairs by department messenger].

Aug. 12, 1884.—Received and read by the Commissioner of Indian Affairs; sent to files room, where it was briefed and registered, and sent to the finance division of the Indian Office for action. In the finance division it was read by the financial clerk, who, on August 12, 1884, prepared a telegram (which was signed by the Acting Commissioner) to Capt. E. P. Ewers, in charge of the Indians in question, authorizing him to purchase beef and flour to an amount not to exceed \$3,000.

Aug. 13, 1884.—The book-keeper of the finance division prepared a requisition on the Secretary of the Interior (which was signed by the Commissioner of Indian Affairs and copied in the book in the finance division kept for that purpose) for the \$3,000, with the request that the same be placed to the credit of Captain Ewers out of the appropriation "Support of Northern Cheyennes and Arapahoes, 1885," for the purchase of the supplies for the Indians in question.

Aug. 13, 1884.—In the finance division of the Interior Department, requisition drawn by clerk of Class IV, examined by chief of Finance Division, sent to chief clerk, examined by him, signed by the Secretary of the Interior, recorded, and sent to the Treasury Department by messenger.

[Note by Committee: The following table substituted for the four separate tables, as given in reports.]

Amount and character of business on hand, received, and disposed of in the Indian division of the Office of the Secretary of the Interior at the times named.

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Relating to Indian lands	1, 549	1, 548	1	1, 513	1, 514	.....	1, 138	1, 137	1	146	243	4
Relating to Indian annuities, trust funds and other moneys	836	835	1	847	848	.....	874	874	.....	141	140	1
Relating to open-market expenditures for supplies, services, &c., for the Indian service.....	1	2, 734	2, 734	1	2, 755	2, 756	.....	2, 972	2, 972	.....	438	438	.....
Relating to contracts and expenditures thereunder for supplies, &c., for the Indian service.....	354	354	.....	432	432	.....	525	525	.....	30	30	.....
Relating to inspection of Indian agencies and schools.....	732	731	1	813	814	.....	1, 063	1, 063	.....	254	251	3
Relating to Indian depredation claims	261	261	.....	460	442	18	1, 372	1, 388	2	82	84	.....
Relating to miscellaneous matters of the Indian service	563	561	2	691	693	.....	878	878	.....	164	164	.....

[*Note by Committee:* The following is substituted for six separate sheets and tables.]

Average amount of business performed, transacted, and disposed of in the Indian division of the Office of the Secretary of the Interior, with the average number of employes therein, and the maximum and minimum amount of business disposed of by the employe doing the most and the least therein during the times specified.

Months.	1884.		1885.		1886.		1887 (to March 1).	
	Average amount.	Average employes.	Average amount.	Average employes.	Average amount.	Average employes.	Average amount.	Average employes.
January *	632	6	624	6	1,059	6	737	6
February	548	6	592	6	710	6	613	6
March	546	6	612	6	700	6		
April	728	6	633	6	743	6		
May	564	6	644	6	600	6		
June	534	6	689	6	718	6		
July	861	6	741	6	770	6		
August	559	6	619	6	704	†5		
September	543	6	463	6	627	6		
October	489	6	570	6	800	6		
November	432	*5	616	6	633	6		
December	508	*5	696	6	773	6		
Total averages	7,024	.....	7,499	.....	8,837	.....	1,350	.....

* One employe was transferred to the General Land Office, Nov. 1, 1884, and the vacancy was not filled till January 1, 1885.

† One employe resigned August 8, 1886, and vacancy was not filled till September 15, 1886. This last change resulted in relieving the division of the employe who was most irregular in attendance.

No account has been kept of the business performed and disposed of by each employe in the Indian division during the calendar years 1884, 1885, 1886, and 1887, to March 1, or any part thereof, for the reason that a portion of the time and labor of at least four, and often of the entire force, is required for the completion of each matter of business, as will be seen from the following statement of the duties of the respective employes, six in number :

Chief of division has general charge of the business and management of the employes of the division ; examines all business matters received before they are passed from his desk, and directs as to action to be taken thereon ; investigates and prepares for action the unusual and more important matters ; prepares instructions for movements of and investigations by inspectors of the Indian service, and, generally, the correspondence based on special instructions of the Secretary and the Assistant Secretaries on Indian matters.

Clerk of class four is employed as corresponding clerk on the matters next in order of importance and intricacy, generally such as affect Indian lands and crimes, contracts for professional services to Indians, &c.

Clerk of class three is employed on the "Register of Letters Received" and index thereto ; keeps the files in order, makes rough drafts of synopses of reports of Indian inspectors, superintendent of Indian schools, &c. ; examines contracts for Indian supplies, transportation, &c. ; accounts of expenditures by Indian inspectors, Indian depredation claims, and keeps account of Indian trust funds, stocks, and bonds.

Clerk of class two is employed as corresponding clerk on routine matters, such as requests for authority for expenditures in open market for supplies, services, &c.

Clerk of class one is employed as type-writer, and copies on type-writing machine all drafts of correspondence, statements, synopses of reports, &c., prepared by corresponding clerks and examining clerk (class three) before they are laid before the Secretary or Assistant Secretaries for consideration and final action. He is also employed by the chief of the division as stenographer when necessary.

The copyist is employed in transcribing from the press-copy books the approved and signed correspondence of the division into the "Permanent record of letters sent," comparing his work usually with the clerk of class two or clerk of class one, as either may find time from his other duties.

If a record had been kept or could now be prepared with any degree of accuracy showing the number of business matters disposed of, it would quite probably be made

to appear that the clerk of class two disposed of more than clerk of class four, and that clerk of class four disposed of more than the chief of the division; but owing to the character of the business transacted such a showing would by no means represent the relative industry, assiduity, or capacity of those employes, nor the importance and value of the services rendered by them, respectively, during any day, month, or year.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employes in the Indian division of the Secretary's Office, Department of the Interior:

Calendar year.	No. of employes.	Average No. of days present.	Average No. of hours employed daily.	No. by proxy.	No. days Dept. was open for business.	Average No. days absent.
1884.....	6	278	7	None.	307	29
1885.....	6	279	7	None.	301½	22½
1886.....	6	283 ² / ₃	7	None.	305	21 ¹ / ₃
1887 (to March 1).....	6	47 ⁵ / ₆	7	None.	48	1 ¹ / ₆

This statement is based on the number of days the Department was open for business. No allowance is made for time and attention devoted to transaction of business of the division by employes outside of the prescribed office hours, or on days when the Department was closed.

The following statement shows the maximum number of days devoted to business by the employe present for the greatest number of days, and also the minimum number of days devoted to business by the employe present for the least number of days in the Indian division of the Secretary's Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to March 1).	Character of business.
Working days.....	307	301½	305	48	} Business relating to Indian affairs.
Maximum number of days.....	303½	301½	300 ⁷ / ₇	48	
Minimum number of days.....	242	251½	272	47½	

In this statement no allowance is made for time devoted to the transaction of business pertaining to this division on Sundays, and before and after the established office hours. During the periods above specified much time has been devoted by the chief of the division to the business of his office, outside of the regular office hours, and the same has been done to a less extent by some of the other employes.

PATENTS AND MISCELLANEOUS DIVISION.

Report of the patents and miscellaneous division, Secretary's office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department Circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
Washington, June 30, 1887.

The honorable the SECRETARY OF THE INTERIOR:

SIR: In compliance with Department circular of March 23, 1887, I have the honor to submit herewith statements showing the principal items of business transacted in the "patents and miscellaneous division" of the office of the Secretary of the Interior, the method of transacting such business, and other information respecting the amount and character of the work performed in the division, called for in communication addressed to you by the Select Committee of the Senate, appointed in pursuance of the resolution of the Senate adopted March 3, 1887.

Very respectfully,

EDWARD M. DAWSON,
Chief of Patents and Miscellaneous Division.

The following statement shows the principal items of business transacted in the patents and miscellaneous division of the Secretary's office, Department of the Interior :

- Patents.*—Appeals from the action of the Commissioner of Patents in patents and trade-mark cases.
 Approval of rules of practice of the Patent Office and of amendments thereto.
 Consideration of requests of the Attorney-General for reports upon applications addressed to him for the institution of suits in the name of the United States to annul letters patent alleged to have been fraudulently issued.
 Consideration of requests that action be taken upon applications for patents, out of the regular order (under Rule 62, Rules of Practice), upon the ground that the inventions are of peculiar importance to some branch of the public service.
 Examination and approval of contracts made by Commissioner of Patents for photolithographing drawings of patents and the issues of the "Official Gazette of the Patent Office."
 Authentication of certified copies of patents for use in foreign countries.
 Requests of Attorney-General for certified copies of records and files of the Patent Office for use in suits against the Government.
 Securing, through the Treasury Department, the admission, free of duty, of books imported for the use of Scientific Library of Patent Office, and of models of inventions.
- Pensions.*—Appeals from the action of the Commissioner of Pensions relating to the recognition of attorneys and agents in pension and bounty land cases, and the payment of their fees.
 Approval of rules and regulations relating to pensions and bounty land.
 Recommendations of the Commissioner of Pensions for the dropping of names from the pension-roll.
 Recommendations of the Commissioner of Pensions for the cancellation of pension certificates improperly issued.
 Requests of the Commissioner of Pensions for securing (through officers of Department of State) medical examination of applicants for pension residing abroad.
 Examination and transmission to Department of Justice of cases submitted by the Commissioner of Pensions for criminal proceedings against persons charged with violation of pension laws.
 Requests of Commissioner of Pensions for information, to be obtained from War Department, respecting the service in Confederate Army of certain applicants for pension.
 Approval of leases of rooms and buildings for pension agents.
 Securing, through Treasury Department, quarters in public buildings for pension agents.
 Approval of accounts for contingent expenses of pension agencies.
 Requests upon Treasury Department for pension vouchers and checks required for use in the Pension Office, and return of the same when not longer needed.
 Affixing seal of Department to bounty-land warrants.
- Lands.*—Designation of newspapers for publication of notices of sales of public lands.
 Approval of contracts for photolithographing worn and defaced township plats and printing maps.
- Bureau of Education.*—Correspondence between the Department and Commissioner of Education, education in Alaska, &c.
- Bureau of Labor.*—Correspondence between the Department and Commissioner of Labor.
 Approval of proposed scope of investigations by Bureau of Labor.
- Geological Survey.*—Approval of proposed operations of Survey.
 Monthly reports of Director of Survey.
 Securing through Treasury Department admissions, free of duty, of books and instruments imported for the Survey.
- The Territories and the District of Alaska.*—All correspondence with the executive officers relating to the government of the Territories and Alaska.
 Construction and completion of United States penitentiaries in the Territories.
 Polygamy in Utah.
 Receipt and custody of certified copies of executive proceedings in the Territories.
 Supervision of the public buildings and grounds in New Mexico, of which the secretary of the Territory is, by law, *ex officio* custodian.
- Utah Commission.*—Correspondence with Utah Commission relating to duties of the Commission, and consideration of their requests for interpretation of statutes under which they act.
- Yellowstone National Park.*—Leases of ground in the Park, and granting privileges for furnishing hotel, transportation and other accommodations to visitors.
 Establishing rules and regulations for the government of the Park, and for the protection of game and natural curiosities, and generally all matters relating to the care and management of the Park.

- Hot Springs Reservation, Arkansas.*—Leasing of bath-house sites upon the reservation and supervision of accommodations furnished and rates charged for baths.
Maintenance of free baths for indigent invalids.
Contracts for improvement of Hot Springs Creek.
Assignment of grounds on reservation for purposes of Army and Navy Hospital, and generally all matters relating to the management and improvement of the reservation.
- Government Hospital for the Insane.*—Purchase of lands for the use of the hospital.
Authorizing admission of insane United States convicts and insane persons charged with offenses against the United States.
Annual supplies and the construction of buildings for the hospital; consideration of estimates of articles required, advertisement for proposals, examination and scheduling of bids received, preparation of contracts and bonds, and superintending execution of the same.
- Columbia Institution for the Deaf and Dumb.*—Authorizing admission of persons of teachable age from the District of Columbia.
- Maryland Institution for the Blind.*—Authorizing admission of persons from the District of Columbia, as provided in section 4869 of the Revised Statutes.
Examination and transmission to Treasury of accounts of the institution for tuition of persons admitted as above.
- Pennsylvania Training School for Feeble-minded Children.*—Authorizing admission of children from the District of Columbia entitled to benefits of the act of June 16, 1880.
Examination and transmission to Treasury of accounts of the institution for tuition of persons admitted as above.
- Freedmen's Hospital.*—Leasing of buildings occupied by the hospital.
Authorizing admission to the hospital.
Examination of annual estimates of supplies required by hospital, advertisement for proposals, examination and scheduling of bids received, preparation of contracts for supplies (and bonds), and superintending the execution of the same.
- New Pension Building.*—All correspondence between the Department and the supervising engineer and architect of the Pension Office building
- Reconstruction of the Patent Office Building.*—All matters relating to the reconstruction of the Patent Office building.
Approval of contracts for labor and materials, and for new model cases.
- Congressional Library Building.*—Purchase of site for library building.
Correspondence between the Department and the Congressional Library Building Commission.
- Attorneys and Agents.*—Admission of attorneys and agents to practice before the Department and its bureaus and offices, under regulations established by authority of section 5 act of July 4, 1884.
Disbarment of attorneys and agents from practice, and consideration of applications for restoration to practice.
- Advertising.*—Authorizing all Department advertising (except for Indian supplies) and examination of accounts for advertising to the extent of ascertaining whether the service was properly rendered.
- Annual Reports.*—Calling for annual reports of all chiefs of bureaus and other subordinate officers required by law or by custom to report to the Secretary of the Interior.
Examination of annual reports when received (excepting reports of Commissioners of Indian Affairs and General Land Office) and reading of proof.
Preparation of data upon subjects confided to this division for use in the annual report and in special reports of the Secretary of the Interior to Congress.
- Accounts for transportation.*—Examination and transmission to Treasury of accounts for transportation over land-grant and bonded railroads furnished officers of the Department and bureaus (except in Indian and land service).
- Enrolled bills.*—Consideration of enrolled bills relating to the business of this Department, referred by the President for report of any reasons why they should not receive his approval, and preparing reports to the President thereon.
- Censuses.*—Matters relating to the seventh, eighth, ninth, and tenth census.
Claims of deputy marshals for extra compensation for services in taking eighth and ninth census.
- Rent of buildings.*—Preparing and superintending the execution of leases of rooms and buildings rented for the use of the Department and bureaus in the city of Washington.
- Low grounds of the District of Columbia.*—Consideration of applications for deeds to lots in the "low grounds of the District of Columbia," under act of July 1, 1879, and preparation of deeds.
- To this division are also sent for record and proper disposition all communications received which do not relate to the business of this Department.

The above statement embraces the principal subjects of the business transacted in this division during the period covered by this report. In addition there is a large amount of business of which it is not practicable to make any classification, assigned to the division under its designation of "Miscellaneous." It is varied in its character, much of it important, requiring careful consideration and treatment, and of such volume as to occupy a very considerable portion of the time and attention of the employés of the division.

In the statistical tables (D 1 and 3) of this report the business classified under the head of "Miscellaneous business" includes not only the miscellaneous matters herein above referred to, but also business upon the subjects named in this statement (B), not specially designated in Table D.

Statement showing in detail the methods of transacting business in the patents and miscellaneous divisions of the Secretary's office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the Secretary's office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each until the same is finally disposed of and notice thereof duly given to the proper party.

The business transacted in this division is usually presented in the form of written communications addressed to the Secretary of the Interior. As a rule these are sent to the division by the chief clerk of the Department, from whose desk the mail for the office of the Secretary is distributed, but others are received directly from the Secretary, First Assistant Secretary, and Assistant Secretary. For convenience of expression, in this portion of this report all matters of business received will be classed under the general term of "letters."

The permanent records kept in the division are a register of "Letters received" and a register of "Letters sent," the purposes of which are sufficiently indicated in their titles, and their form and extent will be hereinafter stated.

There is also a separate roll kept of attorneys and agents admitted to practice before the Department and its bureaus.

Letters received in the division are at once examined by the chief of the division sufficiently to ascertain their purport and whether they are of a nature requiring immediate or special attention, and the more important are briefed by him. They are then passed to the clerk (class 4) in charge of the register of "Letters received," who stamps them (and also the inclosures, if any) with the name of the division and the date of receipt, and briefs such as have not been briefed by the chief of division. This brief consists of the name and address of the writer, or, if from an officer of the Government, his official designation without his name, the date of the letter, a concise statement of its contents, and the number of inclosures. The entry in the register of "Letters received" is a copy of this brief, each entry being numbered consecutively and the same number placed upon the letter and inclosures. A note is also made upon this record of any action taken upon the letter and also of the number of any prior entry relating to the same subject. The clerk in charge of the register of "Letters received" keeps an index of the same, by the names of the writers, or, in the case of officers of the Government, by their official titles, and by subjects, reference being made to the number of the entry in the record of letters received.

If the proper disposition of a letter is its reference to some other Department or to a Bureau or officer of this Department, an appropriate indorsement is placed thereon for signature by the Secretary, one of the Assistant Secretaries, or the chief clerk, as the nature of the case, under the rules of the Department, may require; it is then sent to the chief clerk, and when returned signed, is dispatched to its destination.

Letters requiring final action in the division are, after registration in the "Letters received," returned to the desk of the chief of the division, upon whom devolves the consideration and disposition of all matters of business assigned to the division (with the exceptions stated hereafter), and by whom are prepared in rough the results of such consideration in the form of a letter, decision, contract, &c., as the case may be, which is then copied by the type-writer (clerk of class 1) initialed by the chief of division, presented, through the chief clerk, for signature by the Secretary or one of the Assistant Secretaries, and when returned signed, is press-copied and mailed or dispatched by messenger.

The consideration of appeals from the action of the Commissioner of Pensions relating to the recognition of attorneys in pension cases and the payment of their fees, of recommendations of the Commissioner of Pensions for the prosecution of persons charged with violations of the pension laws, and of applications for admission to practice before the Department and its bureaus, is assigned to a clerk of class

2, who prepares the decisions or letters, which are then reviewed by the chief of division, copied by the type-writer (clerk of class 1), initialed, submitted for signature of the Secretary, &c., as in other cases. When not occupied in the work above specified the clerk of class 2 considers such other business as may be assigned to him by the chief of division.

The register of "Letters sent" is kept by the type-writer and clerk (of class 1). This register is a permanent record, into which are copied from the press-copy books all the communications sent from the Department relating to the business of the division. If the letter is an answer to a letter received, the number of the entry of the latter in the register of "Letters received" is noted in the margin of the record of the letter sent. An index is kept of letters sent, by names or official titles of the persons to whom addressed and by subjects, referring to the page of the record.

Letters retained in the division are, after receiving final action (the purport of which is indorsed upon them), placed in the files according to the numbers given them when received.

In the samples hereafter given it will be understood (to avoid repetition) that all matters of business take the course above outlined.

Samples of items of principal business matters transacted in the patents and miscellaneous division, office of the Secretary of the Interior.

Sample No. 1.

PATENT APPEAL.

The rules of the Department governing appeals to the Secretary of Interior provide that the petition therefor shall be filed with the Commissioner of Patents within ten days after the date of the action to which it relates; that the Commissioner shall forward the papers to the Secretary with a report embodying the material facts of the case and the grounds of his action thereon, and notify the appellant when the report has been submitted. Within twenty days after the report has been submitted appellant shall file a printed brief, and, in contested cases, the written acknowledgment of the appellee that he has been furnished with a copy of the brief, showing the date of receipt. The appellee, or any party opposing the appeal, may, within twenty days after receipt of appellant's brief, file a printed brief in reply. A hearing, limited to one hour for each side, allowed in such cases as the Secretary may desire to hear the parties.

SCOTT } Interference. Improvement in printing machines.—Appeal from decision
vs. }
 GILL. } of Commissioner of Patents awarding priority of invention to Gill.

Patent No. 238,720, granted Walter Scott March 8, 1881.

Application of George C. Gill for patent, filed March 12, 1881.

The Commissioner of Patents transmits appeal of Walter Scott, by his attorney, from the decision of the Commissioner in the case of Scott *vs.* Gill, together with the papers in the case and a report of his action to which the appeal relates and the grounds thereof. Received in patents and miscellaneous division, stamped, recorded, indexed (under "Commissioner of Patents" "Scott" and "Gill") the same as hereinbefore stated generally in respect of "Letters received."

Appellant's printed brief and notice of service of copy of brief upon appellee filed within time prescribed by the rule.

Printed brief of appellee filed.

No oral hearing in this case.

The case was examined by the chief of division and a decision prepared by him reversing the action of the Commissioner of Patents and awarding priority of invention to Scott; copied by type-writer, initialed by chief of division, submitted to the Assistant Attorney-General for the Interior Department, by whom it was approved, initialed and returned to division. Submitted through the chief clerk for signature of the Secretary, signed, returned, press-copied, and recorded as in other cases of "Letters sent," hereinbefore detailed. The decision and the papers relating to the case, belonging to the files of the Patent Office, were then sent to the Commissioner of Patents, who informed the parties of the result of the appeal.

Memorandum.—Immediately after the decision of this case by the Department, a petition was filed in the supreme court for the District of Columbia (the cause entitled *The United States of America ex. rel. Richard Roe et al. vs. Benj. Butterworth, Commissioner of Patents*) for a writ of mandamus commanding the Commissioner to receive the final fee and to issue letters patent to the relators as assignees of Gill notwithstanding the decision of the Secretary of the Interior. The case was heard in general term and the mandamus issued, the court holding in effect that the authority of the Secretary of the Interior to review the acts of the Commissioner of

Patents does not extend to such as are judicial or quasi-judicial in their nature. The case was carried to the Supreme Court of the United States, where the judgment of the court below was affirmed in a decision dated November 3, 1884. Since that date the appeals in the class of patent cases covered by the decision have not been considered by the Secretary, such consideration being confined to cases growing out of the administrative acts of the Commissioner.

Sample No. 2.

CONTRACTS FOR SUPPLIES.

(In the recital below all the labor referred to is performed in the patents and miscellaneous division unless otherwise stated.)

The Superintendent of the Government Hospital for the Insane (for example) submits to the Secretary of the Interior an itemized estimate of the quantities (and quality) of articles required for the use of the hospital during the ensuing fiscal year, consisting mainly of meats, provisions, groceries, dry goods, clothing, shoes, medicines, hardware, fuel, ice, lumber, &c., aggregating about 450 items. The estimate is examined and a copy made of it in the division and a circular of specifications, instructions to bidders, &c., is prepared, which, together with the list of supplies, is sent to the stationery and printing division with a requisition for the necessary printing. Proof is read and corrected in the patents and miscellaneous division, to which also the blanks are sent when printed. After the blanks are received advertisements are ordered in a sufficient number of newspapers to the effect that until a date specified sealed proposals will be received by the Secretary of the Interior for furnishing the supplies embraced in the schedule. The printed schedules, &c., are mailed or delivered to applicants therefor, and, without application, to manufacturers and dealers known to the Department through previous bids. Proposals are required to be submitted in duplicate. Immediately prior to the date specified for opening the proposals, a board of three persons is appointed by the Secretary of the Interior (through the appointment division) to open and consider the proposals received and recommend awards of contracts for the supplies. This board usually consists of the superintendent of the hospital, the chief of the patents and miscellaneous division, and one other person selected from the office of the Secretary or from a Bureau of the Department. The bids are opened by the board in the presence of such bidders as may attend. The proposals are then returned to the division, where a schedule is made showing the names of each of the bidders with the price at which each article is offered set opposite. With this schedule the board then proceeds with its examination awarding to the lowest bidder, where the price is reasonable, except in respect of items where samples are required, in which cases the quality, as evidenced by the samples, as well as the price of the articles offered is considered. Upon the conclusion of its labors the board makes a report to the Secretary of the Interior, accompanied with a list of the bidders to whom it recommends that contracts be awarded and with the accepted price set opposite each item upon the list of articles. This report is received in the division, recorded, &c., as in the case of other letters received, submitted to the Secretary with an indorsement of approval with such modifications as may be deemed proper, and when approved the contracts in duplicate and the bonds are prepared in the division, sent to the contractors for signature, and when returned are carefully examined to ascertain if they are properly executed. The contracts are then submitted to the Secretary for signature, and when signed the seal of the Department is attached thereto. The certified checks of bidders (required by the regulations of the Department to be submitted with each bid as guarantee of good faith) are then returned to the bidders. One copy of the contract is then sent to the finance division of the Department for transmission to the Treasury, and the duplicate, with a copy of every proposal received, is made a part of the return required by section 3744 of the Revised Statutes to be filed in the "returns office." A letter is then written to the superintendent of the hospital informing him of the names of contractors and the prices for supplies during the fiscal year.

(The same general course is pursued in the letting of all contracts for supplies and for materials and labor through this division.)

Sample No. 3.

Hot Springs, Arkansas.—Assignment of site upon the reservation for the Army and Navy Hospital. Act of Congress, approved June 30, 1883 (Army appropriation act), making appropriation for the erection of an Army and Navy Hospital upon the Government reservation at Hot Springs, Ark.

Letter from Secretary of War, inclosing reports of Surgeons-General, Army and Navy, describing the site desired, and requesting its assignment to the purposes of the Army and Navy Hospital.

Letter to Secretary of War, that the plan submitted contemplated assignment to Army and Navy Hospital of more than half of the reservation front and the removal of two of the most substantial bath houses already in operation. It takes in all the

available bath-house sites both on the west and south lines of reservation. It calls for unnecessary sacrifice of private property, and by the removal of the bath-houses will decrease bathing facilities below needs of public. In conclusion, suggests that 200 feet in depth along reservation front should not be included in hospital site.

Secretary of War replies, inclosing copy of indorsements of Surgeons-General of Army and Navy, that it was necessary for sanitary and hygienic purposes that the hospital should have entire control of grounds in its vicinity down to the creek, and that it would be highly objectionable to have part of the front set apart for public purposes. That it is probable that the hospital will require a small bath-house on site now occupied by City Hall; at all events the creek frontage is considered requisite to fulfill all the purposes intended by the hospital establishment. It was not proposed to remove the Ozark and Rammelsburg houses as long as they are properly conducted, but the revenue from them should accrue to War Department.

Secretary of the Interior replies that existing law makes it the duty of the superintendent appointed by the Secretary of Interior to collect all water rents. That Department has no authority of law, therefore, to transfer the collection of rents (of Rammelsburg and Ozark) to War Department, nor does it appear expedient that the supervision of business of the reservation should be divided as proposed. That the Department adheres to views set forth in former correspondence that the entire front (on Hot Springs Creek) for a depth of 200 feet should be held for bath-houses for general use.

Secretary of War relinquishes claim for part of frontage occupied by Ozark and Rammelsburg and Mud Hole, and asks for a frontage of 200 feet.

Hon P. Dinn, House of Representatives, files protest of physicians at Hot Springs, Ark., against including any of the bath-houses at Hot Springs in the site for the Army and Navy Hospital.

Secretary of Interior, in reply to Secretary of War, states that in determining the extent of the site for the hospital the proportion which the Army and Navy bear to the whole people should be considered. In this view regards the site allotted to hospital, excluding the strip 200 feet deep along the front, as a liberal allowance. Deems it best to retain all the frontage for general use.

Secretary of War asks that the Department will designate on map the 200 feet which it thinks should be reserved.

Secretary of Interior replies, returning map, marking off 200 feet width to be reserved except 100 feet, commencing from southern extremity of the reservation, which 100 feet front is allotted to the hospital.

Secretary of War requests that additional ground adjoining Army and Navy Hospital at Hot Springs, Ark., be set aside for use of the same.

Secretary of Interior replies that the ground referred to is already leased as a site for a bath house, therefore Department could not comply with request.

Secretary of War transmits tracing of the topographical map of that portion of the Hot Springs Reservation which has been set aside for the Army and Navy Hospital.

Secretary of War incloses letter from Capt. J. W. Jacobs, acting assistant quartermaster, with indorsement of Quartermaster-General, renewing request that 100 feet of reservation front at Hot Springs be assigned for purposes of Army and Navy Hospital.

Letter Secretary of Interior to Secretary of War, referring to statement in previous correspondence that the parcel of land desired by Captain Jacobs had been leased as a site for a private bath-house. That the said lease is still binding upon the Government, and it is, therefore, not within the power of the Department to assign the lot in question for hospital purposes.

Secretary of Interior to Secretary of War, that it having been represented to the Department that War Department had decided not to retain for use of Army and Navy Hospital the 100 feet along front of reservation set apart for that purpose, that this Department be advised whether such conclusion had been reached.

Secretary of War states in reply to above letter that not only the 100 feet referred to but the whole front lying between the Rammelsburg bath-house on the north and the limits of the reservation on the south should be retained for hospital purposes.

Secretary of War to Secretary of Interior, inclosing copy of letter from surgeon in charge of the Army and Navy Hospital at Hot Springs, and of indorsement of Surgeon-General, requesting that the western line of hospital grounds be extended 20 to 25 feet toward the creek.

Letter of Secretary of War referred to superintendent of Hot Springs Reservation for report and recommendation.

Superintendent of reservation to Secretary of Interior, reporting upon request of Surgeon-General United States Army for change in western boundary line of the site allotted to the Army and Navy Hospital.

Letter to Secretary of War in reply to his request, informing him that the matter of change in boundary line was referred to superintendent of reservation who, after consultation with the surgeon in charge of hospital, recommends to Department for approval the allowance of an additional strip of land on the west of present western boundary line of hospital grounds, varying in width from 10 to 25 feet, to conform to

natural slope of the ground, and inquiring whether the addition proposed by the superintendent will be satisfactory to War Department. Attention invited to so much of letter of superintendent as relates to that part of the site heretofore assigned to hospital as the "City Hall lot," running 100 feet along the reservation front by a depth of about 200 feet. As the lot in question is not essential to the administration of the hospital, consideration is requested of the question whether it may not be excluded from the site assigned to the hospital in order that it may be devoted to other and more useful purposes.

Secretary of War to Secretary of Interior, relative to change in boundary (western) of Army and Navy Hospital site at the Hot Springs. Accepts the additional strip as proposed and relinquishes to Interior Department the 100 feet front on corner of Reserve avenue, "old City Hall lot."

[*Note by Committee:* The following has been substituted for the twenty-three sheets of tables as given in report and the figures correctly copied.]

The following statement shows the amount and character of business on hand, received, and disposed of in the patents and miscellaneous division of the office of the Secretary of the Interior at the times named:

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Yellowstone National Park and its management.....	2	140	142	...	139	139	...	136	136	...	11	10	1
Hot Springs Reservation and its management.....	7	85	92	...	102	102	...	65	65	...	7	7	...
Government Hospital for Insane and its management.....	...	250	250	...	286	286	...	337	337	...	5	5	...
Columbia Institution for Deaf and Dumb and its management.....	...	8	8	...	4	4	...	5	5	...	...	...	...
Maryland Institution for the Blind and its management.....	...	13	13	...	6	6	...	12	12	...	1	1	...
Pennsylvania Institution for Feeble-Minded Children and its management.....	...	1	1	...	5	5	...	6	6	...	2	2	...
The Eighth, Ninth, and Tenth Census.....	1	65	66	...	58	58	...	6	6	...	...	...	...
Cases from Patent Office—appeals, requests, reports, &c.....	24	196	†224	...	202	202	...	237	235	2	39	38	3
United States Geological Survey and its business.....	...	48	48	...	149	149	...	121	121	...	18	18	...
Bureau of Education and its business.....	...	58	58	...	30	30	...	49	49	...	3	2	1
Freedmen's Hospital and its management.....	...	1,622	1,622	...	1,915	1,915	...	2,070	2,070	...	237	237	...
New Pension Building.....	...	45	45	...	52	52	...	41	41	...	7	7	...
Leases by Department of buildings, repairs, &c.....	...	30	30	...	41	41	...	30	30	...	1	1	...
Department advertising.....	...	26	26	...	33	33	...	24	24	...	1	1	...
Territorial matters—reports and miscellaneous business.....	1	56	57	...	133	133	...	125	125	...	29	28	1
Territorial penitentiaries, their erection, &c.....	1	23	24	...	19	19	...	27	27	...	2	2	...
Appeals from Pension Office as to attorneys, their fees, &c.....	...	109	41	68	181	190	59	162	98	123	24	31	116
Disbarment and suspension of agents and attorneys.....	...	80	†91	...	22	84	...	79	152	9	12	11	10
Applications of disbarred or suspended attorneys for restoration, &c.....	...	64	†89	2	48	62	1	36	56	2	14	12	4
Cases for criminal prosecution for violating pension laws, &c.....	...	109	109	...	183	183	...	288	288	...	24	24	...
Applications for admission to practice.....	...	465	465	...	1,043	1,043	...	1,254	1,254	...	400	400	...
Miscellaneous business, &c*.....	...	2,240	2,240	...	2,162	2,162	...	3,277	3,267	10	561	571	...
Bureau of Labor and its business.....	...	...	...	...	30	30	...	31	31	...	1	1	...

* See note to Statement B.

† Excess of work disposed of over total received; that in many cases more letters than one are written in disposing of each case.

[*Note by Committee:* The following has been substituted for five sheets of tables as given in report.]

The following statement shows the average amount of business performed, transacted, and disposed of in the patents and miscellaneous division of the office of the Secretary of the Interior, with the average number of employes therein, and the maximum and minimum amount of business disposed of by the employe doing the most and the least therein during the times specified:

Months.	1884.		1885.		1886.		1887 (to March 1).	
	Average amount.	Average employes.	Average amount.	Average employes.	Average amount.	Average employes.	Average amount.	Average employes.
January	463	3	553	3	702	4	746	4
February	456	3	577	4	703	4	763	4
March	471	3	587	4	712	4	.....	4
April	477	3	574	3	700	4	.....	.....
May	482	2	587	3	712	4	.....	.....
June	623	3	583	4	712	4	.....	.....
July	469	3	578	4	707	4	.....	.....
August	453	3	557	4	694	3	.....	.....
September	459	3	598	4	696	2	.....	.....
October	476	3	573	4	697	4	.....	.....
November	458	3	583	4	699	4	.....	.....
December	455	3	578	3	701	3	.....	.....
Total averages..	5,742	.....	6,928	.....	8,435	.....	1,509	.....

Department regulations do not require that an account should be kept of the amount of business transacted and disposed of by each employe of this division. It is impracticable to supply the required data.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employes in the patents and miscellaneous division of the Secretary's office, Department of the Interior:

Calendar year.	Number of employes.	Average number of days present.	Average number of hours employed daily.	Number by proxy.	Remarks.
1884	3	234	7	0	In the preparation of this statement public holidays, annual and sick leave were deducted.
1885	4	248	7	0	
1886	4	247	7	0	
1887 (to March 1)	4	48	7	0	

The following statement shows the maximum number of days devoted to business by the employe present for the greatest number of days, and also the minimum number of days devoted to business by the employe present for the least number of days, in the patents and miscellaneous division of the Secretary's office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to Mar. 1).	Character of business.
Maximum number of days*	283	296	286	48	See statement "B" and statement "D" for respective years.
Minimum number of days	255	275	275	43	

* In the preparation of this estimate public holidays, Sundays, annual and sick leave were deducted.

FINANCIAL AND DISBURSING DIVISION.

Report of the financial and disbursing division, Secretary's office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the financial and disbursing division of the Secretary's office, Department of the Interior.

This division has charge of the financial affairs of the Department.

The average financial business of this division during the years 1884, 1885, 1886, and to March 1, 1887, amounted per annum to \$90,000,000, and from January 1, 1884, to March 1, 1887, to \$285,000,000.

The average disbursements of the disbursing clerk under his bond during the same period have amounted, per annum, to \$5,185,000, and for the three years and two months to \$15,546,120.05, including payment of vouchers from 5 cents to five or more thousands of dollars. The accounts of disbursements from January 1, 1884, to December 31, 1886, have been adjusted by the accounting officers of the Treasury and found correct.

The work of the division is current in its character, and must be and is disposed of each day.

There is no pending or undisposed-of business on hand in this division, nor was there any on hand at the end of either of the calendar years mentioned.

The cash transactions of the disbursing division are balanced at the close of each day's work. A general cash balance is made at the end of each week, and a statement is prepared and forwarded by the Secretary to the Treasurer of the United States, and shows the amount during the week credited to the disbursing clerk, the amount disbursed, and the cash on hand. The cash on hand is counted by the chief clerk of this Department, who certifies to the correctness of the same to the Secretary. The first of the following week the Treasurer of the United States returns this statement to the Secretary of the Interior, with his indorsement thereon, as to the amount of cash on hand so far as it relates to the disbursing clerk's deposits with the Treasurer or any of the assistant treasurers. The object of this weekly cash statement is to prevent disbursing clerks having in their possession larger balances than is required for immediate use.

The quantity and character of the work performed by the employés of this division during the time heretofore mentioned was about the same, and was equally distributed. Said employés were required to be first-class book-keepers and accountants, and as such rendered excellent service, and performed their duties faithfully and conscientiously. The nature of the work being entirely financial, requiring both an accurate and honest handling of the public funds and a practical knowledge of book-keeping and the system of accounts, it was found impracticable to keep a record of individual work, other than the statements of each employé hereto attached.

The employés of this division from January 1, 1884, to March 1, 1887, consisted of 1 chief, 9 clerks, 1 copyist.

The average number of days devoted to business in each year by each of said employés was 365, less Sundays, public holidays, and the regular annual 30 days leave of absence. The time each day so employed was from 9 to 4 o'clock.

The attention of each employé to duty was faithful and constant, and no time was lost on account of sickness or other causes. Said duty was performed by each employé in person and not at any time by proxy.

A recapitulation of the annexed statements of the employés of this division of the work performed during the years 1884, 1885, 1886, and to March 1, 1887, shows the result of the work of the division during said time.

Requisitions issued by the Secretary of the Interior on the Secretary of the Treasury in settlement of adjusted accounts and for advances to disbursing, pension, Indian, and land agents :

1884	8,517
1885	8,590
1886	9,872
1887, to March 1	1,581
	23,560

Of this number, 16,250 contained each from one to forty heads of appropriations charged.

A fair average of five charges each made ledger entries numbering 81,250.

Disbursements 1884, per vouchers 1 to 11445	\$5,197,038 40
Disbursements 1885, per vouchers 1 to 12075	5,351,559 16
Disbursements 1886, per vouchers 1 to 10385	4,997,522 49
Disbursements 1887, January and February, per vouchers 1 to 1715 ...	225,068 26

Total disbursements from January 1, 1884, to March 1, 1887. 15,771,188 31

These vouchers when cashed were first entered on the day journal, then on the cash-book, then on the ledger, and then on the abstracts of disbursements in duplicate, making a total of five entries of each voucher. Each voucher was also copied *verbatim* in the record books.

The number of checks drawn by the disbursing clerk on the Treasurer of the United States and the assistant treasurer at New York, in payment of vouchers principally outside of Washington amounted to in—

1884	11,487
1885	12,720
1886	13,069
1887	2,013

Total number of checks drawn from January 1, 1884, to March 1, 1887.. 39,289

Each check before mailing was carefully compared with the letter of inclosure and with the name and amount of voucher for which it was drawn in payment.

Letters written, general and miscellaneous, in—

1884	10,101
1885	13,199
1886	13,106
1887	2,072
	38,478

Letters received in acknowledgment of drafts and on general financial subjects :

1884	13,268
1885	11,395
1886	11,640
1887	1,379
	37,651

Letters briefed, recorded, and filed..... 37,651

Letters written and transcribed from press-copy book to general record books and indexed :

1884	712
1885	829
1886	642
1887	146
	2,329

Examination, entry, and forwarding to the United States Treasury of weekly cash statements of disbursing agents, showing amount of credits, disbursements, and cash on hand at end of each week :

1884	480
1885	480
1886	480
1887	80
	1,520

The number of appropriation warrants received from United States Treasury in 1884, 1885, 1886, and 1887, recorded and entered on the ledgers of this Department, was 143.

The warrants embraced all the appropriations to be expended under the direction of the Secretary of the Interior, making a total of appropriation headings on the ledger of 2,545; an average of 845 appropriations for each year.

Of these appropriations, 150 were disbursed annually by the disbursing clerk, and the vouchers for the same had to be entered on his personal ledger, cash-book, journal, and accounts current.

He is required to render his accounts quarterly to the Treasury Department for settlement.

Payments from the remaining appropriations were made principally on general settlements, stated and certified by the accounting officers of the Treasury.

Statements were received monthly from the Treasurer of the United States and assistant treasurer at New York, reporting the number of checks, drawn on those places of deposit by the disbursing clerk, that were presented and paid. These statements

were compared and checked with the check-book of the disbursing clerk containing the numbers reported as having been presented and paid as follows:

Checks reported as paid :

1884	8,949
1885	10,478
1886	9,517
1887	1,426
	<hr/>
	30,370

All accounts of the disbursing agents for the Hospital for the Insane, Institution for the Deaf and Dumb, Geological Survey, Hot Springs Reservation, Howard University, Yellowstone National Park, Railroad Office, &c., were sent to this division for examination prior to being transmitted to the United States Treasury for final adjustment. Said accounts were rendered quarterly.

The number of accounts received were :

1884	65
1885	72
1886	126
1887	42
	<hr/>
	305

With an average of 50 vouchers to each account, the total number of vouchers examined amounted to 15,250.

The Returns office.—Connected with this division is the Returns Office, an office established by Congress, act June 3, 1862, Revised Statutes, section 512, for the filing of copies of all contracts made by the War, Navy, and Interior Departments.

Number of contracts received, acknowledged, briefed, and filed :

1884	3,705
1885	3,451
1886	4,167
1887	1,131
	<hr/>
	12,454

In addition to the work herein mentioned, this division has the preparation and compilation of the annual estimates for the Department and its various bureaus and offices, the time and labor on which cannot be tabulated or estimated ; considerable care and attention must be given to the same from the time work commences thereon until the final passage of the appropriation bills by Congress.

The pay-rolls of the Department, its bureaus and offices, embraced a total number of employes, clerical and per diem, per annum, amounting to 3,500, each one of whom was paid by this division.

EXHIBIT A.

Statement showing in detail the methods of transacting business in the financial and disbursing division of the Secretary's office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the financial and disbursing office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

All moneys appropriated by Congress for the service of this Department are brought upon the ledgers through appropriation warrants, which are prepared at the Treasury Department.

These warrants give in detail the amounts appropriated under each specified item in the appropriation act, and the proper titles of appropriations to be credited. The warrants are first sent for record to the Auditor and Comptroller of the Treasury having cognizance of the appropriations, then to the Bureau of this Department having like cognizance of the same ; by the Bureau they are forwarded to the Secretary, and by him to the financial division, and from its chief to the requisition clerk of the Department, who records them in the warrant book. They are then initialed by said chief and indorsed by the Secretary as having been recorded, and are forwarded to the Second Comptroller for file, thus insuring uniformity in titles and accuracy in amounts in all the offices of the Government interested in the appropriations therein contained.

All advances of funds to agents of this Department are made by requisitions drawn upon the requests of the Bureau officers having supervision of the agents.

The agents are charged and held responsible under their bonds for all funds so advanced. The requisitions take the same course through the Treasury Department as the claims requisitions mentioned below.

CLAIMS UNDER CONTRACTS WITH THE INDIAN OFFICE.

The claimant forwards his vouchers to the Indian Office, and after examination and verification with contracts as to prices, the vouchers are transmitted to the Second Auditor, who, after examination and verification, states the account, giving name and address of claimant, amount due, and the appropriations to be charged. The account thus stated by the Auditor is forwarded to the Second Comptroller, who certifies to the correctness of the Auditor's statement of the account. The Comptroller then returns the certified account to the Indian Office. The Commissioner then makes a written request to the Secretary of the Interior for a requisition on the Secretary of the Treasury for a warrant in payment of said claim. The Commissioner's request is attached to the Treasury settlement and forwarded to the Secretary of the Interior, and from him to the chief of the financial division, who in turn passes the same to the requisition clerk, Robert Johnson.

He prepares a requisition in accordance with the Commissioner's request and the Treasury statement of the claim; it is then initialed by said chief for the signature of the Secretary of the Interior. After being signed it is returned to the financial division and then to Mr. Johnson, who records it in a journal from which it is posted in the Department ledger to the debit of the appropriations named in the requisition.

The requisition is then forwarded by messenger to the Second Comptroller for his signature, and is recorded in his office; it is then sent to the Second Auditor for signature and record; he then transmits it to the warrant division of the Treasury, where the warrant for its payment is prepared. The warrant is then sent to the draft room, where the draft is drawn and transmitted to the claimant, as directed in the Treasury settlement, the request of the Commissioner of Indian Affairs, and the requisition of the Secretary of the Interior.

All requests for requisitions are preserved in bound volumes of five hundred each, bearing corresponding numbers with the requisitions drawn thereon.

At the close of each fiscal year the balances of appropriations on the books of this Department are compared with those of the Treasury Department and must and always do agree.

EXHIBIT B.

The disbursing clerk makes his request on the Secretary of the Interior for moneys to be placed to his credit to meet the obligations of the Department from time to time, as provided in the appropriation bill. The Secretary of the Interior makes his requisition on the Secretary of the Treasury for such advances on such appropriations as may be required. The Secretary of the Treasury causes a warrant to be issued in favor of the disbursing clerk under his bond. This warrant passes through the hands of the several accounting officers of the Treasury having control of the same. A draft is finally issued in favor of the Treasurer of the United States, placing the money to the credit and subject to the order of the disbursing clerk. When placed to his credit he is so notified, the disbursing clerk then checks on the same to meet his immediate disbursements. At the close of each quarter of the year, and fifteen days thereafter, he submits his accounts of disbursements for the quarter just ended to the Auditors of the Treasury for adjustment. The Auditors examine the same and pass them to the First Comptroller for settlement. When settled by the Comptroller, the disbursing clerk is so informed, the letter of information stating that the account and the balance on hand, if any, agree with said settlement.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the finance division of the Secretary's office, Department of the Interior:

Calendar year.	Number of employés.	Average number of days present.	Average number of hours employed daily.
1884	10	277	7
1885	10	267	7
1886	11	277	7
1887 to March 1).....	11	48	7

[*Note by Committee* : Seventeen pages contain statements of the services and labors of each employé as given by himself, and are not sufficiently important to print.]

STATIONERY AND PRINTING DIVISION.

Report of the stationery and printing division, Secretary's office, on the methods of business and work, as requested by Senate Select Committee and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
Washington, May 10, 1887.

The honorable SECRETARY OF THE INTERIOR :

SIR : I have the honor to transmit herewith a report with reference to the method of doing business and the work performed in this division during the calendar years 1884, 1885, 1886, and 1887, up to March 1, 1887, together with a statement showing the average number of employés, &c., as requested in circular letter dated March 23, 1887.

Respectfully,

L. Q. C. LAMAR, JR.,
Acting Chief Stationery and Printing Division.

The following report of blanks and blank books received and issued during the years 1884, 1885, 1886, and from January 1 to March 1, 1887 ; also the quantity on hand beginning January 1, 1884, 1885, 1886, and from January 1 to March 1, 1887 :

STOCK ON HAND.

Date.	Secretary's Office.		Patent Office.		Pension Office.		Land Office.		Indian Office.	
	Blanks.	Books.	Blanks.	Books.	Blanks.	Books.	Blanks.	Books.	Blanks.	Books.
Jan. 1, 1884	700,900	3,220	720,000	135	1,956,000	None.	1,520,746	1,960	500,600	1,110
Jan. 1, 1885	721,900	3,480	846,460	191	2,916,600	None.	1,720,800	2,086	612,700	1,916
Jan. 1, 1886	753,080	3,771	875,012	166	2,871,315	None.	1,580,746	1,981	555,536	1,442
Jan. 1, 1887	700,000	3,500	800,500	160	2,500,000	None.	1,500,000	2,000	550,000	1,500
to Mar. 1, 1887										

RECEIVED.

Jan. 1, 1884	963,762	4,571	1,000,800	2,490	6,015,000	None.	1,320,608	1,405	353,520	2,406
Jan. 1, 1885	963,000	4,571	1,058,940	2,100	6,915,000	None.	1,677,810	1,220	343,525	2,650
Jan. 1, 1886	541,805	2,412	1,344,550	5,203	7,143,300	None.	1,485,750	656	221,850	2,847
Jan. 1, 1887	52,200	405	60,100	10	1,123,300	None.	220,000	25	51,500	500
to Mar. 1, 1887										

ISSUED.

Jan. 1, 1884	527,374	2,692	894,788	2,152	4,472,470	None.	2,781,012	1,697	459,504	1,993
Jan. 1, 1885	610,406	2,120	1,370,864	2,782	8,856,425	None.	1,334,421	962	342,146	2,509
Jan. 1, 1886	611,758	2,005	1,067,188	2,800	7,515,542	None.	1,391,467	827	367,192	2,198
Jan. 1, 1887	7,800	29	146,336	17	536,221	None.	397,838	347	103,910	817
to Mar. 1, 1887										

The following number of requisitions for blanks, blank books, &c., received from the various Bureaus, offices, and agents of the Department of the Interior, during the years 1884, 1885, 1886, and from January 1 to March 1, 1887 :

Date.	Secretary's Office.	Patent Office.	Pension Office.	Land Office.	Indian Office.	Miscellaneous.
January 1, 1884.....	127	1,218	124	1,015	477	66
January 1, 1885.....	101	1,459	121	1,010	379	63
January 1, 1886.....	107	1,479	168	1,406	329	61
January 1, 1887, to March 1, 1887.....	35	347	34	279	85	14

The following number of invoices sent to Pension, Land, and other offices and agents of the Department of the Interior, during the years 1884, 1885, 1886, and from January 1 to March 1, 1887:

Date.	Miscellaneous offices.	Indian schools.	Agents, Pension Office.	Register and receiver Land Office.	Agents, Indian Office.	Surveyors-general.
January 1, 1884.....	7	16	80	737	529	None.
January 1, 1885.....	19	29	87	935	900	None.
January 1, 1886.....	4	114	126	846	600	8
January 1, 1887, to March 1, 1887.....	26	61	28	185	79	9

The following number of notices sent to the various Bureaus of the Department of the Interior to order the reprint of blanks, &c., during the years 1884, 1885, 1886, and from January 1 to March 1, 1887:

Date.	Secretary's Office.	Patent Office.	Pension Office.	Land Office.	Indian Office.
January 1, 1884.....	143	141	159	230	92
January 1, 1885.....	163	170	123	127	103
January 1, 1886.....	163	137	346	335	211
January 1, 1887, to March 1, 1887.....	36	26	49	50	30

Average number of persons engaged on this work.

The following recapitulation of blanks and blank books on hand, received, and issued during the years 1884, 1885, 1886, and from January 1 to March 1, 1887:

Date.	Stock on hand.		Received.		Issued.	
	Blanks.	Books.	Blanks.	Books.	Blanks.	Books.
1884.....	5, 197, 246	6, 425	9, 653, 690	10, 872	9, 135, 148	8, 534
1885.....	6, 818, 460	7, 673	10, 958, 275	10, 541	12, 514, 262	8, 373
1886.....	6, 635, 689	7, 360	10, 737, 255	11, 118	10, 953, 147	7, 830
1887.....	6, 050, 500	7, 160	1, 507, 100	945	1, 192, 155	1, 210

Statement showing the principal items of business transacted in the stationery and printing division of the Secretary's office, Department of the Interior.

Preparation of estimates of appropriations for stationery.

Preparation of estimates of appropriations for printing.

Preparation of estimates and proposals for purchase of stationery.

Awards of contracts for stationery supplies.

Making of contracts for stationery supplies.

Making out orders for stationery.

Making out requisitions for printing and binding.

Receipt and inspection of stationery supplies.

Receipt and inspection of printed material and delivery to the various offices.

Auditing accounts in payment for stationery.

Filing requisitions for stationery, including packing, mailing, or delivery to various offices.

Filing requisitions for standard blanks, and blank books, and packing, mailing or delivering the work.

Examining claims of railroads for transportation of supplies and forwarding to proper office for payment.

Keeping records of letters received and sent, of requisitions for stationery, printing, and blanks, of claims for transportation, of invoices for blanks, stationery, and printing.

Accounts of all stationery, blanks, and printing ordered, received and issued.

Making up accounts of blanks, stationery, and printing, furnished to the respective offices of the Department.

Receipt of proof of work ordered printed, and transmission of it to the proper office for examination.

Statement showing the principal items of business transacted in the stationery and printing division of the Secretary's office, Department of the Interior.

The number of Bureaus and offices which have been supplied with stationery, blanks, and printed matter, during the calendar years 1884, 1885, 1886, and 1887, to March 1, 1887, are as follows:

Secretary's office.....	1	Indian and land inspectors.....	8
Patent Office.....	1	Pension agents.....	18
Pension Office.....	1	Hot Springs Reservation.....	1
Land Office.....	1	Freedmen's Hospital.....	1
Indian Office.....	1	Civil Service Commission.....	1
Bureau of Education.....	1	Hospital for Insane.....	1
Office Commissioner of Railroads.....	1	National Museum.....	1
Bureau of Labor.....	1	Fish Commission.....	1
United States Geological Survey.....	1	New Pension Building.....	1
Indian agencies.....	68	Architect of United States Capitol.....	1
Indian schools.....	30	Board of Indian Commissioners.....	1
Local land offices.....	108	Education of children in Alaska.....	1
Offices of governors and secretaries of Territories.....	13	Yellowstone National Park.....	1
Offices of surveyors-general.....	16	Total.....	281

In addition to the offices above named, the following offices have been supplied with stationery, blanks, and printed matter during the periods opposite each:

Interstate Commerce Commission during the present calendar year.....	1	Tenth Census, calendar year 1884....	1
Pacific Railroad Commission during the present calendar year.....	1	New Orleans Exposition, calendar year 1885.....	1
Congressional Library Commission during the present calendar year..	1	Indian Depredation Claims, calendar year 1886.....	1
Reconstruction Department Building, calendar years 1884-1885.....	1	Total.....	7

The stationery required for general use of the Department is contracted for and supplied in the following manner: Sealed proposals to furnish the Department with about one hundred and forty-five different articles of stationery are advertised for.

A schedule showing estimated quantities required is made up in this division, a copy of which is submitted herewith.

The Secretary designates one gentleman from each Bureau as a member of a board on awards. At a specified time the proposals are opened by this board, and the prices, together with samples of the various articles of stationery submitted, are considered and examined.

After determining upon the kind, quality, and price, which may be desired, of the various articles of stationery which have been submitted, a report is made to the Secretary recommending the same for his approval and acceptance.

It usually requires about ten days to transact the business coming before this board. The samples selected are then filed in this division for future reference and comparison.

The contracts are written, and the proper execution thereof, and all details in relation to the same is attended to. An order is then written and forwarded to the successful bidder, for example, on two thousand reams of 12-pound letter paper, together with specimens of the various rulings required. He forwards the paper to the Department, together with an invoice of the quantity sent. Upon the receipt of the paper it is carefully compared with the sample accepted; the quantity received is compared with the invoice; the price charged on the invoice is compared with the price agreed upon in the contract; the value of the goods is calculated in accordance with such price. If found correct in these particulars the contractor is credited upon the books of this division with the value of the paper sent by him, and the paper is stored and issued to the several Bureaus in such quantities as may be required, and in accordance with requisitions forwarded by them to this office. The contractor then forwards a statement of his account, which is compared with the invoice, showing the amount to his credit, is prepared for the approval of the First Assistant Secretary, and is, after such approval, sent to the disbursing office of this Department for payment.

Proposals must be made out and signed in duplicate.

PROPOSALS FOR STATIONERY.

_____, 1886.

To the SECRETARY OF THE INTERIOR :

SIR: The undersigned hereby propose to furnish for the Department of the Interior the various kinds of stationery, &c., as hereinafter specified, and at the rate set against each item, for the fiscal year commencing on the 1st of July, 1886, and ending on the 30th of June, 1887. The right is accorded to the Department of the Interior to order a greater or less quantity of any or all the articles embraced in this proposal as the wants and exigencies of the Department may require, provided that the quantities ordered shall not exceed the quantities named herein by more than 50 per cent. The articles are to be of the best quality, and are to be delivered promptly at the Department as ordered, and upon the terms specified herein and in the circular relating thereto, dated "Department of the Interior, May 8, 1886."

[Signature of each member of firm and firm-name. If a corporation, its name, and signature of the officer authorized to sign for the corporation.] } Doing business as _____, _____, _____, _____, _____.

Number of item.	Quantity.	Description of articles.	Rate.		Number of item.
			Dollars.	Cts.	
1	375 reams.	Foolscap paper, best quality, white, ruled various widths, 14 pounds to the ream, sample required per ream.			1
2	950 reams.	Legal cap, best quality, white, ruled various widths, 14 pounds to the ream, sample required per ream.			2
3	10 reams	Legal cap, best quality, linen stock, cream 14 pounds to the ream, ruled, sample required per ream.			3
4	2,500 reams.	Letter paper, best quality, cream, 12 pounds to ream; 1,250 reams flat, and 1,250 reams ruled to order and folded, sample required, average per ream.			4
5	50 reams	Flat letter paper, linen stock, white or cream, 12 pounds to the ream, sample required per ream.			5

[Here follow descriptions of items Nos. 6 to 152.]

FORM OF GUARANTY.

_____, 1886.

I hereby guarantee that _____, doing business in the city of _____ at No. _____ street, ha— proper facilities and _____ able to fulfill a contract, in accordance with _____ proposal for furnishing stationery for the Department of the Interior during the fiscal year commencing July 1, 1886, and that _____ will execute a contract with good and sufficient bond if _____ bid be accepted.

(See Note No. 8.)

*(Name:) _____.
 (Residence:) _____.
 (Place of business:) _____.

Approved:
 (Name:) _____.
 (Official position:) _____.
 (Residence:) _____.

NOTE 1.—The following quantities and varieties of rubber bands will be required under items Nos. 50 and 51: 288 gross each, 0½ and 0¼; 432 gross 000½, and 864 gross 000½, under item No. 50; and 576 gross each, Nos. 11 and 19, and 6,000 gross each, Nos. 16 and 32, under item No. 51.

NOTE 2.—The following quantities and varieties of pens will be required under item 52, viz: Gillott's: 25 gross Nos. 293; 50 gross each, Nos. 202, and 303; 150 gross each, Nos. 390 and 404, and 175 gross No. 170. Esterbrook's: 25 gross each, Nos. 1 (Silverine), 11, 049, 280, 284, and 314; 50 gross each, Nos. 2 (Colorado), 9, 79, 130, 161, and 239; 100 gross No. 14; 125 gross No. 182; 75 gross No. 122, and 200 gross No. 048. Spencerian: 125 gross each, Nos. 1, 2, and 3, and 25 gross No. 31. Perry's: 125 gross "U" pen. Miller Bros.: 25 gross each, Nos. 1, 15, 15 T. P., 20, 80, 103, and 130; 50 gross each, Nos. 87 and 444; 75 gross No. 23, and 250 gross No. 4. Dreka's: 50 gross No. 2 and 200 gross No. 3.

NOTE 3.—The following varieties and quantities of Windsor & Newton's colors will be required under item 76: 6 cakes each, black lead, cerulean blue, Chalon's brown, deep chrome, red lead, red ocher, warm sepia, Indian purple, Indian red, lemon yellow, Mars' orange, Naples yellow, and purple lake; 12 cakes each, burnt sienna, burnt umber, chrome yellow, cobalt blue, gamboge, Roman sepia, terre verte, Vandyke brown, yellow ocher, Roman ocher, intense blue, Italian pink, lampblack, Prussian blue, and Prussian green; 36 cakes neutral tint: 48 cakes carmine, and 60 cakes Hooker's green, No. 1.

NOTE 4.—All envelopes to be full Government cut, with wide lap. Each box to be plainly labeled to show the quantity, actual size, name of the manufacturer or contractor, and number of the item. Boxes to be made strong, of heavy pasteboard, thoroughly stayed with muslin, and covered with white

paper, unglazed. The envelopes under items 35, 36, 37, 38, 39, 40, 47, and 48 to be put up in boxes of 500 each; the o under items 41, 42, 43, 44, 45, 46, 49, 139, 140, and 152 in boxes of 250 each.

NOTE 5.—All flat and folded paper to be put up in one-ream packages and properly labeled, and the weight per ream when delivered to be fully up to and in accordance with the weight specified in the proposal.

NOTE 6.—Each sample of paper (under items 1 to 20, inclusive) should consist of one quire, excepting item 16, which should consist of one ream, and each sample of envelopes (under items 35 to 49, inclusive, and 139, 140, and 152) should consist of one package, or 25 envelopes.

NOTE 7.—Each item on the proposal requiring a sample must be represented by a separate sample, independent of any other item, and when samples are attached to cards but one item should be represented on a card. Each sample should be plainly marked to indicate the name of the bidder, name of the manufacturer, trade-mark, number of the item, and price, and a list of the samples sent should accompany the package containing them. Proposals must not be sent in the same package with samples.

*NOTE 8.—This proposal must be accompanied by a satisfactory guarantee, approved by a United States officer of the district in which the guarantor resides or does business, that the bidder will execute a contract, with good and sufficient bond, if his bid be accepted for any or all the articles. No bid will be considered without such guarantee.

Statement showing in detail the methods of transacting business in the stationery and printing division of the Secretary's office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the ——— office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

Articles of stationery are called for by, and supplied to, the several bureaus and offices of the Department in the following manner: A requisition for a variety of stationery is made out by the register and receiver of the land office at Gainesville, Fla., for instance, and addressed to the Commissioner of the General Land Office, being received by the chief clerk of the latter office it is referred to the registry division to be recorded, then forwarded to the chief clerk of the Department, who refers it to the chief of the stationery and printing division, without indorsement. The chief of this division examines the requisition, and if properly made out, and if the articles called for are considered necessary, he puts his initials on it as evidence that he has examined it and passes it over to the issue clerk, who gives it a file number and enters it on a register kept for that purpose. The quantities called for are then issued from the supplies kept in stock, packed in packages and boxes, addressed and forwarded as registered mail, or as freight, to the register and receiver at Gainesville, Fla. An invoice enumerating the variety and quantity of stationery sent is then made out and signed by the chief clerk of the Department and sent to the officers, notifying them that the supplies have been forwarded. Upon receipt of the invoice the officers compare it with the quantities of stationery received, receipts, properly indorses it, and returns it to this Department. Upon its return the chief clerk of the Department sends it to the chief of the stationery division, who forwards it to the issue clerk, and by him its return is noted in the register of requisitions, and the same is then filed.

The chief of the stationery division of the Bureau of Pensions makes a requisition for twenty reams of letter paper on a blank prepared for that purpose, addressed to the chief clerk of the Department. After being approved by the chief clerk of the bureau it is press-copied and forwarded to the chief clerk of the Department and sent without indorsement to the stationery and printing division. The chief of this division examines the requisition, and if the letter paper is considered necessary he puts his initials on it as evidence that he has examined it and passes it over to the issue clerk, who enters it on a register kept for that purpose, numbers it, issues the supplies called for and forwards the same to the stationery division, Bureau of Pensions, taking receipt therefor. It is then checked off as being complete, the date it was filled being entered on the register, and is forwarded to the book-keeper, who abstracts the requisitions quarterly, records the quantities and cost in the stock book and stock ledger and charges the cost of the stationery issued to the bureau in the ledger. The requisition is then filed, thus showing the completion of the transaction.

To save the extra cost of frequently reprinting blanks which are in common use by a large number of offices a large supply is printed at one time and conveniently stored.

A requisition for a variety of blanks is made out by the register and receiver of the land office at Olympia, Wash. Ter., for instance, and addressed to the Commissioner of the General Land Office. Being received by the chief clerk of the latter office, it is referred to the registry division to be recorded, and then to the accounts division, where it is examined, and if the quantity or variety of blanks is too large it is amended accordingly. It is then prepared for reference to the Secretary of the Interior and forwarded to the chief clerk of the Land Office for signature. After being signed it is forwarded to the Secretary, and being received by the chief clerk of the

Department it is sent to the chief of the stationery and printing division, who examines it and passes it over to the issue clerk. The requisition is then given a file number and noted on the register of requisition for blanks. The quantities called for are then taken from the supply in cases, packed, addressed, and forwarded by mail to the local land officers. An invoice enumerating the variety and quantity of blanks sent is then made out and signed by the chief clerk of the Department, and sent to the local land officers notifying them that the blanks have been forwarded. Upon receipt of the invoice the officer compares it with the quantities of blanks received, receipts, properly endorses, and returns it to the Secretary. Upon receipt of it the chief clerk of the Department sends it to the chief of the stationery division, who forwards it to the issue clerk, and by him it is noted in the register of requisitions and filed.

The Commissioner of Education makes a requisition on the Secretary of the Interior for printing 10,000 blanks. After being press-copied, it is forwarded to the Secretary's office accompanied by a copy of the blank required. It is received by the chief clerk of the Department, and sent without indorsement (except in special cases) to the stationery and printing division. The chief of this division examines the requisition and if it is properly made out, and if the blanks are considered necessary, he put his initials on it as evidence that he has examined it and passes it over to the printing clerk, who draws a requisition on the Public Printer for the work and places it upon the desk of the chief of the division who examines it, and, if found correct, puts his initials on the corner of it and forwards it to the chief clerk of the Department for signature. It is then press-copied, entered in the register of requisitions and, with the copy of blank required, forwarded to the Public Printer, and at the same time a notice is sent to the Commissioner of Education that the requisition has been drawn on the Public Printer for the work, and the file number of the requisition is included in the notice for convenience in calling up the case should it be necessary to hasten the work.

Upon the receipt of the requisition in the office of the Public Printer an estimate of the cost of the work is made out and forwarded to the Secretary for approval. This estimate is received by the chief clerk of the Department and forwarded to the stationery and printing division. The chief of the division passes it over to the printing clerk, who examines it and compares it with the requisition for the blanks. If considered correct, he copies the items on the brief of the requisition originally received from the Bureau, enters the total on the register of requisitions and in the estimate book. The estimate is then prepared for signature and delivered to the chief of division who examines and initials and forwards it to the chief clerk for signature. After being signed it is returned to the stationery and printing division and there mailed to the Public Printer. After putting the form in type proof is forwarded by the Public Printer to the chief of the stationery and printing division. After examination it is passed over to the printing clerk, who forwards it to the office requiring the blanks, and after examination there it is returned to the chief of the stationery and printing division, and by him it is returned to the Public Printer. Upon completion of the blanks, they are tied up in packages, and sent to the stationery and printing division with invoice. They are there received by the printing clerk, and if they are found to be in accordance with the requisition he gives receipt therefor to the Public Printer's delivery messenger. He then makes out a receipt showing the number of requisition, title and quantity of blanks, and forwards the blanks to the Bureau where receipt is obtained for them and returned for file with the requisition originally received from the Bureau, on which the date of delivery is noted. This receipt is evidence that the requisition has been filled, and shows to whom the work was delivered. The date of delivery of the work is then noted on the register of requisitions.

In the course of a few days after the delivery of the work, the Public Printer forwards a bill showing the amount charged to the Department for the work; and after passing through the hands as others papers received by the division, the printing clerk receives it, notes the cost on the original requisition on the register of requisitions and charges the amount to the account of the Bureau of Education.

[*Note by Committee:* The following table is a consolidated statement of five sheets as given in report.]

Average amount of business performed, transacted, and disposed of in the stationery and printing division of the office of the Secretary of the Interior, with the average number of employes therein, and the maximum and minimum amount of business disposed of by the employes doing the most and the least therein during the times specified.

Months.	1884.				1885.				1886.				1887 (to March 1).			
	Average amount.	Aggregate employes.	Maximum.	Minimum.	Average amount.	Average employes.	Maximum.	Minimum.	Average amount.	Average employes.	Maximum.	Minimum.	Average amount.	Average employes.	Maximum.	Minimum.
January	3,350	12			3,479	14			3,588	14			3,362	16		
February	3,347	12			3,481	15			3,595	13			3,360	16		
March	3,353	12			3,477	15			3,591	14						
April	3,353	12			3,479	15			3,597	14						
May	3,354	12			3,483	14			3,593	14						
June	3,352	12			3,480	14			3,594	16						
July	3,354	12			3,475	13			3,591	15						
August	3,348	12			3,477	13			3,597	14						
September	3,350	13			3,477	12			3,593	14						
October	3,350	12			3,478	12			3,594	14						
November	3,349	13			3,475	13			3,592	13						
December	3,349	14			3,475	14			3,594	15						

[*Note by Committee:* The following is substituted for five sheets in report.]

Amount and character of business on hand, received, and disposed of in the stationery and printing division of the office of the Secretary of the Interior at the times named.

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Letters received		524	524		490	490		541	541		175		
Requisitions for stationery received		2,140	2,140		2,166	2,166		2,327	2,327		509		
Invoices of stationery received		609	609		753	753		768	768		141		
Bills for stationery received		202	202		232	232		225	225		13		
Transportation claims		217	217		31	31		20	20		2		
Proposals, annual, received		47	47		56	56		53	53				
Letters sent, including those referred		480	480		438	438		713	713		198		
Invoices for stationery sent		374	374		360	360		496	496		106		
Bills for stationery sent agents, &c		76	76		68	68		89	89		51		
Contracts made out in duplicate		32	32		31	31		32	32				
Requisitions abstracted		2,140	2,140		2,166	2,166		2,327	2,327		509		
Abstracts made out and entered		92	92		88	88		101	101		35		
Orders for stationery sent		338	338		439	439		572	572		96		
Requisitions for printing received		3,216	3,216		3,230	3,230		3,185	3,185		589		
Invoices of printing received		9,648	9,648		9,690	9,690		9,555	9,555		1,767		
Bills for printing received		3,216	3,216		3,230	3,230		3,185	3,185		211		
Estimates of cost of printing		3,216	3,216		3,230	3,230		3,185	3,185		589		
Requisitions for printing sent		3,216	3,216		3,230	3,230		3,185	3,185		589		
Bills for repayment sent		6	6		4	4		2	2		10		
Requisitions for blanks received		3,051	3,051		3,133	3,133		3,550	3,550		794		
Invoices of blanks received from printer for storage and issue		950	950		1,100	1,100		1,196	1,196		190		
Invoices of blanks received from agents, &c		1,346	1,346		1,922	1,922		1,572	1,572		192		
Letters and notices sent		755	755		686	686		1,202	1,202		191		
Invoices for blanks sent		1,346	1,346		1,922	1,922		1,572	1,572		193		
Requisitions for blanks abstracted		3,051	3,051		3,133	3,133		3,550	3,550		794		

It is impracticable to prepare a statement showing the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified in this report, as no two employés in the stationery and printing division are performing the same character of work.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the stationery and printing division of the Secretary's office, Department of the Interior:

Calendar year.	Number of employés.	Average number of days present.	Average number of hours employed daily.
1884	12	262	7
1885	14	272	7
1886	14	286	7
1887 (to March 1)	15	45	7

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the stationery and printing division of the Secretary's office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to March 1).
Maximum number of days*	299½	299	295½	48
Minimum number of days†	234	240	254	37

* This shows the record of one employé engaged on miscellaneous work.

† This shows the record of four employés engaged on miscellaneous work.

In addition to the number of days of absence indicated by the figures showing the minimum number of days present during the year 1885, as above, the party was not on the roll from June 30, 1885, to November 18, 1885.

One of the clerks in this division worked an estimated number of hours in addition to the maximum number of days stated above, such excess being equal to 332 days, as follows: 1884, 128 days; 1885, 103 days; 1886, 83 days; March 1, 1887, 18 days; total, 332 days.

CUSTODIAN'S DIVISION.

Report of the custodian's division, Secretary's Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing in detail the methods of transacting business in the custodian's division of the Secretary's office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the custodian's office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

Congress makes annual appropriations for the contingent expenses of this Department, including all its Bureaus, offices, and buildings, specifying therein the articles to be purchased "and other absolutely necessary expenses."

Towards the close of each fiscal year advertisements are prepared and sent to the miscellaneous division and by it printed in newspapers, inviting proposals for miscellaneous supplies for the coming fiscal year. Blank forms of proposals are sent to

those wishing to bid. All proposals are opened in the office of the custodian on an appointed day, in the presence of a representative of each Bureau of the Department, constituting a committee of award. An abstract of all bids is prepared, and the above committee meets with the custodian (who is an *ex-officio* member) from day to day to consider these proposals, examine samples, and make recommendations to the Secretary that contracts be made with certain parties for furnishing the various articles on the schedule which it seems to them to be for the best interests of the Department to accept. On approval of this recommendation by the Secretary the custodian causes contracts, with bond, to be drawn and executed between the Secretary and the successful bidder. Contracts are made in duplicate, one copy being kept in the returns office and the other deposited in the Treasury Department.

The samples of miscellaneous supplies submitted by those bidders to whom a contract is awarded are retained in the office of the custodian, and all goods ordered are required to conform to these samples.

Separate advertisements are sent out for proposals for supplying the Department with fuel and with ice; also for the washing of towels and the winding of clocks. This latter class of proposals is opened by the custodian and abstracts are prepared, which are submitted to the Secretary. Contracts with a bond are made for these articles in the same manner as for miscellaneous supplies.

Each Bureau or office of this Department in need of any of the enumerated articles, or things that may be necessary, makes a requisition for the same. Said requisition is then signed by the head of the Bureau from which it emanates, or by his legal representatives; then it is approved by the Secretary, or Acting Secretary, after which it is forwarded to the custodian, whose duty it is to supply the articles mentioned in said requisition, either by articles contracted for or by purchase in open market, as the case may be. When received by the custodian, each requisition is stamped with the date of its receipt and entered on a record book, kept for that purpose, under head of the Bureau from which it was received, with the name and title of the officer making such requisition, with the date of its receipt, also giving it a number, which numbers are given to each consecutively as they are received. Should any of the articles called for by this requisition not be in "stock" the custodian writes an order, giving it a number, also stating for what Bureau it is wanted; if a "contract" article, upon the contractor for the same; if it be a miscellaneous or "open-market" article, then upon whomever he deems it best to supply the required want. These orders are then forwarded to the Secretary, or Acting Secretary, for his signature; when signed they are returned to the custodian, who makes a letter-press copy of each of said orders, after which he mails them to the respective party or parties. From the letter-press copy a transcript is made of these orders in an indexed book called the "order book" under the account of each individual with whom the Department does business. When articles ordered are received by the custodian (or in case of bulkiness are delivered to the Bureau or office calling for the same) they are accompanied by a memorandum bill, which is entered in the "order book," opposite the order for the same, with date of delivery and the price thereof; then these articles are by him turned over to the chief clerk of the Bureau making the requisition, who receipts for the same, when it is so entered upon the record of requisitions as "filled," with the date of signature. At the close of the month an abstract of these completed requisitions is made for each Bureau of the Department, giving the name, number, and price of contract articles and the total value of the same; also the name, cost price, and total value of "open-market" articles delivered. An aggregate statement is also made of the entire value of all supplies to each and every Bureau for each month during the year. These aggregate amounts are copied into a ledger book kept for that purpose and the requisitions and abstract sheet filed away.

All accounts when due are presented on vouchers signed in duplicate. These are compared with the order and requisition and audited by the book-keeper and certified to by the custodian as to the exigency of the demand and reasonableness of the charge, if the articles are purchased in "open market," and when the articles are purchased under contract he certifies that the price is the true contract price. One of these vouchers, known as the "original," is approved by the Secretary, or Acting Secretary, then by the custodian forwarded to the creditor, by him to be presented to the disbursing officer of the Department for payment. The "duplicate" voucher is retained in the office of the custodian, and on the approval of the "original" voucher by the Secretary, or Acting Secretary, the "duplicate" is recorded by items in the "stock book," and in the "stock ledger" a record is kept of the date of payment and name of party to whom payment is made.

In addition to making monthly statements a weekly report is made, for the information of the Secretary and chief clerk, giving a summary of the week's business, including a financial statement, which gives the balances on hand of the different appropriations from which expenditures are made through this office.

The sum of \$100 being set apart for payment of subscriptions for newspapers for the Secretary, his assistants, and the commissioners of the various Bureaus of the

Department, the journals as selected are ordered by the eustodian and the accounts for the same audited and certified to for payment.

The sum of \$500 being annually appropriated for the completion of sets of books for the Department library, the books selected by the librarian and chief clerk are ordered and the accounts for the same audited and certified to by the custodian.

After due and sufficient advertisement the contract for the sale of the waste paper of the Department is let to the highest bidder, who gives bond for the faithful performance of the contract as required. An account is kept with the contractor and receipts for the sale of said paper are turned over by the eustodian to the disbursing clerk of the Department, who gives a receipt for the same.

Under the direction of the Secretary condemned material is sold at auction, and returns for the net proceeds of such sale are received by the eustodian, by him recorded, and disposed of in the same manner as is pursued in the receipts for the sale of waste paper.

Statement showing the principal items of business transacted in the custodian's division of the Secretary's office, Department of the Interior.

Filling requisitions for the various articles of miscellaneous supplies which it is proper to purchase and pay for out of the appropriation for contingent expenses of the Department.

Keeping in stock various articles for convenience in filling requisitions without delay.

Keeping such books as are necessary in the transaction of the above business, and the making up of monthly statements of expenditures from the contingent appropriation.

Auditing accounts and certification of them to the Secretary.

Advertising for proposals for miscellaneous supplies, and the supervision of the bids, drawing of contracts and bonds.

Collection of the sales of waste paper and of condemned material.

The custody of the appropriation of \$500 annually made for the completion of sets of books for the Department library.

The Forty-ninth Congress having made an appropriation of \$28,500 for furnishing the new Pension Building, requisitions for such articles as are specified in that appropriation are filled by the eustodian and certified to, and books kept for that appropriation in the same manner as for the appropriation for contingent expenses of the Department.

[*Note by Committee* : The two following statements have been substituted for thirteen sheets of statements given in report.]

Amount and character of business on hand, received, and disposed of in the custodian's division of the office of the Secretary of the Interior at the times named.

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.
Requisitions for miscellaneous supplies.....	21	1, 336	1, 324	33	1, 308	1, 287	54	1, 267	1, 274	47

Payments for supplies on vouchers of sums of \$5,000 to \$13,000 monthly each year.

Average amount of business performed, transacted, and disposed of in the custodian's division of the office of the Secretary of the Interior, with the average number of employes therein, and the maximum and minimum amount of business disposed of by the employe doing the most and the least therein during the times specified.

Month.	1884.				1885.				1886.				1887 (to March 1).			
	Average amount.	Average employes.	Maximum.	Minimum.	Average amount.	Average employes.	Maximum.	Minimum.	Average amount.	Average employes.	Maximum.	Minimum.	Average amount.	Average employes.	Maximum.	Minimum.
January	120	3	.....	.....	135	4	.....	.....	139	4	.....	.....	121	4	.....	.....
February	90	3	.....	.....	99	4	.....	.....	93	4	.....	.....	101	4	.....	.....
March	95	3	.....	.....	91	4	.....	.....	103	4	.....	.....	.....	.....	.....	.....
April	96	3	.....	.....	104	4	.....	.....	113	4	.....	.....	.....	.....	.....	.....
May	118	3	.....	.....	89	4	.....	.....	79	4	.....	.....	.....	.....	.....	.....
June	121	3	.....	.....	134	4	.....	.....	129	4	.....	.....	.....	.....	.....	.....
July	109	3	.....	.....	105	4	.....	.....	109	4	.....	.....	.....	.....	.....	.....
August	100	3	.....	.....	112	4	.....	.....	91	4	.....	.....	.....	.....	.....	.....
September	122	3	.....	.....	110	4	.....	.....	91	4	.....	.....	.....	.....	.....	.....
October	144	3	.....	.....	107	4	.....	.....	103	4	.....	.....	.....	.....	.....	.....
November	101	3	.....	.....	108	4	.....	.....	113	4	.....	.....	.....	.....	.....	.....
December	120	3	.....	.....	114	4	.....	.....	99	4	.....	.....	.....	.....	.....	.....

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employes in the custodian's division of the Secretary's office, Department of the Interior:

Calendar year.	No. of employes.	Average No. of days present.	Average No. of hours employed daily.	No. by proxy.	Remarks.
1884	3 to 5	2-277 } *1-190 }	7	0	* Dr. Ward sick 90 days.
1885	4	276 $\frac{3}{4}$	7	0	.....
1886	4	277 $\frac{1}{2}$	7	0	.....
1887 (to March 1)	4	49 $\frac{3}{4}$	7	0	.....

The following statement shows the maximum number of days devoted to business by the employe present for the greatest number of days, and also the minimum number of days devoted to business by the employe present for the least number of days in the custodian's division of the Secretary's office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to Mar. 1).	Character of business.
Maximum number of days	275	275 $\frac{1}{2}$	277 $\frac{1}{2}$	51	Clerical.
Minimum number of days	*190	269 $\frac{1}{2}$	274 $\frac{1}{2}$	47 $\frac{1}{2}$	Do.

* Dr. Ward sick ninety days.

Our work is of such a character that, from the time a requisition is made on the custodian until the same is filled, and the accounts as to the disposal of the items called for is made, there is no particular stage of the work from which a direct showing of each employe's work could be made.

DOCUMENT ROOM.

Report of the document division of the Secretary's office on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
Washington, May 26, 1887.

Hon. H. L. MULDROW,
Acting Secretary :

SIR: I have the honor, in response to instructions contained in circular of March 23, 1887, to submit herewith a report regarding the "methods of business and work" of the document division, including detailed "items" of certain of the "principal business matters transacted" by the same, together with statements as to the "character and amount of business transacted" during the calendar years 1884, 1885, 1886, and January and February, 1887, number of persons employed in the division, &c., being information requested in his communication of March 18, 1887, by the Hon. F. M. Cockrell, chairman of Senate Select Committee.

Very respectfully,

JOHN G. AMES,
Superintendent of Documents.

Statement showing the principal items of business transacted in the document division of the Secretary's office, Department of the Interior.

The principal items of business of the division are :

- (1) The reception, storage, distribution, and sale of public documents.
- (2) General correspondence regarding the publications of the Government.
- (3) Exchange of public documents amongst public libraries.
- (4) The reception and distribution of postage stamps for the use of the Department in conducting correspondence with foreign countries.
- (5) The compilation of the Official Register of the United States.

Statement showing in detail the methods of transacting business in the document division of the Secretary's office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the Secretary's office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each until the same is finally disposed of and notice thereof duly given to the proper party.

PUBLIC DOCUMENTS.

Public documents are received and acknowledgment of receipt made to party delivering the same, chiefly the Public Printer.

The title of document, number of copies received, and date of reception are entered in receiving register.

Documents are stored in rooms provided for the same, and folded as soon as practicable, and delivered by messenger or by mail upon the direction of superintendent of documents to parties named upon the franking label of the Department.

The name of party to whom delivered is entered in distributing register, together with title of document sent, the date of sending, and the name of the person at whose request it is sent.

Each document is accompanied by a communication, in separate envelope, notifying the recipient of its transmission, and at whose request it is sent, and he is furnished with a blank form of acknowledgment of receipt to be returned to this office.

The date of acknowledgment is then entered in distributing register.

CORRESPONDENCE.

Letters regarding documents, on their reception from the chief clerk of the Department, are stamped with the stamp of the office, and in case the document desired can be supplied, the same is forwarded at the earliest practicable moment, unless the records of the office show that it had already been supplied to the party named to receive it, the registration detailed above attending each document.

If a letter contain a request in behalf of a party other than the writer, the writer himself is then notified of the action of the Department, and his communication,

with name written in bold letters at upper right-hand corner, filed open in file-case of this office, minutely subdivided in alphabetical arrangement, where at any moment it can be readily consulted.

The open file-case in which answered letters are deposited renders all briefing and folding of such letters unnecessary, thus saving labor and expense. It is the most convenient method of filing letters ever tried by the office.

In case a document cannot be furnished, the writer is immediately notified of this fact and referred to some other Department, if it be available for distribution by the same.

REGISTRATION OF DOCUMENTS DISTRIBUTED.

The registers of the office are so arranged that it is possible to ascertain, with scarcely a moment's delay, whether any party in this country or abroad has been supplied with any particular document distributed by the office, and if so, the date of its distribution, by whose request it was sent, and the date of its receipt.

This registration has been of great service in enabling the office to detect duplications in the distribution of documents, as otherwise it would be impossible to prevent such duplication. During the past four years it is probable that the duplication of not less than thirty thousand volumes has in this way been prevented, and these documents saved for the use of other parties that would otherwise have been unsupplied.

SALE OF DOCUMENTS.

By act of Congress one thousand copies of the United States map were in October, 1886, published for sale by this office, all of which were sold prior to March 4, 1887. By joint resolution of March 3, 1887, the Secretary of the Interior is authorized to sell any public document available for sale at cost price, which service is assigned to this office. The details of this service are as follows:

Receipt of order for document with payment for same.

Entry of name and address of party purchasing, title of document sold, date of sale and price, entered in register.

Document forwarded by registered mail.

Letter mailed to purchaser, notifying him of its transmission, and acknowledging receipt of payment.

Money delivered to disbursing officer of the Department, to be covered into the Treasury, and his receipt taken and filed.

EXCHANGE OF PUBLIC DOCUMENTS AMONGST LIBRARIES.

Many of the public libraries of the country find their shelves burdened with duplicate copies of documents while lacking other documents of equal or greater value. At the request of certain of these libraries this office has for the past two or three years acted as a medium of exchange, receiving duplicates from, and supplying missing volumes to, a large number of institutions in all parts of the country. Not less than twenty-five thousand volumes have thus been redistributed, greatly to the satisfaction of the libraries themselves and to the advantage of the public. This valuable service will probably remain a permanent part of the work of the office.

POSTAGE-STAMPS.

Requisition made upon postmaster of the city, prepared by stamp clerk, indorsed by the superintendent of documents, and signed by Acting or First Assistant Secretary.

Date of reception and amount in value entered in receiving register.

Delivered by stamp clerk to the several Bureaus of the Department on requisition of heads of the same and their acknowledgment of receipt taken.

Date of delivery, number, and denomination of stamps supplied, office to which delivered, and value entered in the distributing register by stamp clerk.

Account verified and balanced by stamp clerk and inspected by superintendent of documents.

OFFICIAL REGISTER OF THE UNITED STATES.

Prepared biennially.

A letter is addressed to each Department of the Government, usually in May of the year for which the Register is prepared, requesting returns for his Department, and blanks for the same supplied.

On receipt thereof, usually not earlier than August or September, returns are carefully arranged, paged, and in all respects prepared for printing, and forwarded to the Public Printer.

Proof of entire work is read by this office.

A card index of all names embraced in volumes is then made, arranged in alphabetical order, and printed.

The Register is published in two volumes and distributed at once to members of Congress, with name stamped upon the side.

Its further distribution as required by law is made as soon as practicable thereafter.

The preparation of the Official Register, or "Blue Book," involves a large amount of labor, chiefly in proof-reading and in making the index. For the index the name of each and every employé of the Government, contained in the two large volumes, must be carefully and distinctly written upon a card prepared for the purpose and subsequently arranged in the minutest alphabetical order.

The proof-reading and preparation of the index require the services of one proof-reader and six indexers for at least six months. The labor of one clerk for at least five months is required in the simple arrangement of the cards in alphabetical order.

Errors in the preparation of the Official Register can be avoided only by the most careful and conscientious service on the part of those employed upon the work.

Samples in detail of business transacted in office of superintendent of documents.

PUBLIC DOCUMENT.

Received and acknowledgment of receipt made to Public Printer.

Name of document, date of receipt, and number received entered in receiving register.

Deposited in its proper place in storage-rooms.

Wrapped, and, if a large volume, twined.

Mailing label, properly addressed, attached.

Delivered to mail messenger to be deposited in city post-office.

If sent by registered mail, the acknowledgment of its receipt by registry clerk of post-office taken.

The above-named work is done by chief of folding-rooms and his assistants.

Mailing label addressed by correspondence clerk and delivered to chief of folding-rooms.

Date of mailing, name and address of party to whom sent, and of party requesting or directing its supply entered in distributing register by registry clerk.

Date of acknowledgment of receipt entered in distributing register by registry clerk.

LETTER.

Received from chief clerk of Department.

Stamped with stamp of office and date of receipt by superintendent of documents.

Action to be taken indicated, or reply dictated to stenographer and type-writer, by superintendent of documents.

Reply prepared by type-writer, or other correspondence clerk, whose initials are attached.

Examined and initialed by superintendent of documents and delivered to chief clerk.

Signed by Acting or First Assistant Secretary and returned to superintendent of documents.

Press-copied by messenger.

Inserted in envelope by writer.

Sealed and deposited in departmental mail-bag by messenger.

Date of reply entered upon the original letter by writer of reply.

Name of correspondent written in red ink in upper right-hand corner by writer of reply.

Letter deposited in file-case, open, by superintendent of documents.

In case a document available for distribution is requested, a mailing label properly addressed is sent to the mailing clerk, and if sent to a party other than the writer of the letter, said party is notified of its being mailed and at whose request it is sent, while the writer himself is informed of its transmission.

In case the document requested is a publication of another Department, or of a Bureau of this Department distributing its own documents, said letter is referred to the proper officer and the writer notified of its reference.

In case the document cannot be supplied, the writer is at once notified to this effect.

Alphabetical index of letters dispatched is daily made by index clerk.

The following statement shows the amount and character of business received, transacted, and disposed of during the period and on hand pending and undisposed of

at the dates specified below, in the document division of the Secretary's office, Department of the Interior :

Public documents.	1884.	1885.	1886.	1887.*
Number of documents on hand January 1.....	† 250, 000	246, 234	337, 047	297, 313
Number received during calendar year.....	202, 645	274, 874	164, 846	19, 000
Total.....	452, 645	521, 108	501, 893	316, 313
Number distributed during calendar year.....	206, 411	184, 061	204, 580	12, 640
Number on hand at close of calendar year.....	246, 234	337, 047	297, 313	303, 687

* Received and distributed during January and February and on hand March 1.
 † Estimated.

The number of documents at any time on hand is no indication whatever of the amount of business in arrears in the matter of their distribution, as many of them are at all times held awaiting the direction of members of Congress, upon whose order they are distributed. It is seldom that these orders are pending more than one week, and usually not longer than from one to three days.

Addressing dispatch labels, recording names and addresses of parties to whom documents are sent, the names of persons by whose order or request they are supplied, and the date of their transmission and receipt :

	1884.	1885.	1886.	1887.*
Number of entries pending January 1.....	† 25, 000	35, 000	25, 000	30, 000
Number of labels and entries involved in business of calendar year.....	425, 000	360, 000	365, 000	25, 000
Total.....	450, 000	395, 000	390, 000	55, 000
Number of labels addressed and entries made during calendar year.....	415, 000	370, 000	360, 000	45, 000
Number of entries pending at close of calendar year.....	35, 000	25, 000	30, 000	10, 000

* Received and distributed during January and February and on hand March 1.
 † Estimated.

The above numbers are approximate estimates of the amount of business of this character received, transacted, &c. An exact statement can be made from the records of the division, but not without the expenditure of more time than its importance would justify.

CORRESPONDENCE.

The correspondence of the division is practically kept up to date, as it seldom happens, except in the absence of the superintendent of documents when on annual leave or ill, that letters remain more than a day or two unanswered.

The following is an approximate estimate of the number of communications received, including acknowledgments of receipt of documents, and of communications dispatched :

	1884.	1885.	1886.	1887.*
Number of communications received.....	65, 000	65, 000	67, 000	8, 500
Number of communications dispatched.....	70, 000	75, 000	80, 000	9, 500

* During January and February.

PREPARATION OF THE OFFICIAL REGISTER OF THE UNITED STATES.

1884.

On January 1, 1884, about two-thirds of volume 2 of the Register of 1883 were pending, involving proof-reading of 660 pages royal octavo, fine print, indexing of 54,000 names, and arranging in alphabetical order of 80,000 index cards. This work was completed in May, requiring 908 days' labor.

1885.

The entire data in manuscript of volumes 1 and 2 of the Register of 1885, numbering 4,527 folio pages, were received from the several Departments and offices of the Government.

The two volumes of the Register of 1885 were arranged, paged, and in all other respects prepared for the printer, and volume 1 and one-third of volume 2 completed, involving proof-reading of 1,155 pages, indexing of 74,000 names, and arranging in alphabetical order of 46,000 index cards, requiring 718 days' labor.

1886.

Volume 2 of the Register of 1885, two-thirds of which were pending January 1, was completed in May. The work done embraced proof-reading of 704 pages, indexing of 57,000 names, and arranging in alphabetical order of 85,000 index cards, and required 920 days' labor.

CUSTODY AND DISTRIBUTION OF UNITED STATES POSTAGE-STAMPS.

1884.

Postage-stamps to the value of \$4,520 were received from the postmaster of the city.

Requisitions for stamps to the amount of \$4,647 were received from the several Bureaus and offices of the Department, and the stamps delivered accordingly, receipts taken, and account properly kept.

1885.

Value of stamps received	\$2,415 00
Value of stamps delivered to Bureaus and offices of Department	3,346 25

1886.

Value of stamps received	3,367 00
Value of stamps delivered to Bureaus and offices of Department	3,142 90

January and February, 1887.

Value of stamps received	150 00
Value of stamps delivered to Bureaus and offices of Department	152 00

The statement showing the average amount and character of business performed, transacted, and disposed of during the periods specified by the employés in the document division of the Secretary's office, Department of the Interior, can be furnished only by taking the entire aggregate amount of the several kinds of work done by the division each year, and dividing the same into twelve equal parts. This, however, will give only partial and inadequate information regarding the monthly average amount of business transacted, as no small portion of it is of such a character as will not admit of such an average statement. As full a statement as is practicable, and upon the basis above indicated, is submitted as follows :

Character of business.	Average amount of business transacted.			
	1884.	1885.	1886.	1887. *
Documents received and stored	16,887	22,906	13,737	9,500
Documents folded and distributed	17,200	15,338	17,048	6,320
Value of documents sold			†\$300 00	\$300 00
Labels addressed and entries made in distributing Register ..	34,583	30,833	30,000	22,560
Communications received	5,416	5,416	5,583	4,250
Communications dispatched	5,833	6,250	6,667	4,750
Postage-stamps:				
Amount in value received	\$376 67	\$201 25	\$280 58	\$75 00
Amount distributed	\$387 25	\$278 85	\$261 91	\$76 00

* During January and February.

† Covers the months of October, November, and December.

PREPARATION OF THE OFFICIAL REGISTER OF THE UNITED STATES.

It is impossible, from the character of the work, to make any satisfactory statement of the average monthly business transacted in the matter of the preparation of the Official Register.

The following statement shows the average number of employés in the document division of the Secretary's Office, Department of the Interior, during the periods specified:

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	28	28	28	22	22	18	18	17	19	20	20	19
1885.....	19	19	18	18	18	18	18	17	18	26	26	26
1886.....	26	26	26	22	21	17	14	14	14	14	14	14
1887 (to Mar. 1). n.....	14	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The large increase in the number of employés of the division during the months of January, February, and March, 1884 and 1886, and October, November, and December, 1885, is explained by the fact that during these months the work of compiling the Official Register of the United States was being done.

Statement showing the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified, in the document division of the Secretary's Office, Department of the Interior.

No such account of the work of each employé of the division as is essential in order to supply the information above requested has been kept, for these reasons:

(1) Because the character of the work is such as to render it impracticable to keep such an account. The work is of such variety from week to week, and often from day to day, that it would be impossible to rate it in any such way as to give the "maximum and minimum" transacted during any special month.

(2) Because it has not been thought that any public interest would be subserved or the force of the division made any more industrious or efficient by the attempt to keep such a daily record, while the time and attention required in keeping the same accurately would diminish by no small amount the time devoted to the public and pressing business of the office.

The work of the division has never been so small as not to occupy the entire official time of every employé, and it has been only by the diligent and faithful labor of each and all that the correspondence of the division has been kept practically up to date, and that so small arrearages in the distribution of documents or in other matters have at any time accumulated.

These employés deserve commendation for the industry and efficiency they have with rare exceptions exhibited, and for the personal interest they have taken in having the work of the division well and promptly done. It has been seldom that an inefficient or indifferent clerk has been assigned to duty in the division, and whenever this has been done such an one has either soon "mended his ways" or been relieved from service.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the document division of the Secretary's Office, Department of Interior:

Calendar year.	No. of employés.	Average No. of days present.	Average No. of hours employed daily.	Remarks.
1884.....	21 $\frac{7}{12}$	266 $\frac{3}{8}$	7	The aggregate leaves of absence on account of sickness in the division—
1885.....	20 $\frac{1}{12}$	273	7	During the year 1884 amounted to 400 days.
1886.....	18 $\frac{9}{12}$	276 $\frac{1}{2}$	7	During the year 1885 amounted to 200 days.
1887 (to Mar. 1).	14	41 $\frac{5}{7}$	7	During the year 1886 amounted to 163 days.

The reduction in number of employés for January and February, 1887, is accounted for chiefly by the fact that no clerks were then employed upon the compilation of the Official Register. This work is done during the last months of the odd and the first months of the even years.

The following statement showing the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the document division of the Secretary's Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to March 1).
Maximum number of days	281	284½	281	48
Minimum number of days	*227	†222½	‡235½	§0

* The employé present only 227 days was absent 50 days on account of sickness.

† The employé present only 222½ days was absent 52 days on account of sickness.

‡ The employé present only 235 days was absent 26½ days on account of sickness and 21 days without pay.

§ This employé was absent during the entire months of January and February on account of sickness.

CENSUS DIVISION.

Report of the census division, Secretary's office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the census division of the Secretary's office, Department of the Interior.

The census division was established for the purpose of completing the unfinished work of the Tenth Census.

The principal business transacted therein consists of reading and revising proofs of unpublished reports of the Tenth Census, and attending to all correspondence relating to matters connected with the census, outside of the distribution of the final reports.

Statement showing in detail the methods of transacting business in the census division of the Secretary's office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the Secretary's Office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

Upon the receipt from the office of the Public Printer of first-galley proofs of any report the same are immediately stamped "first galley proof." The date is also stamped thereon. The proof is then read by copy and such changes made as seem necessary and proper. The marks are then transferred to other sets, which are forwarded the author, chief special agent, and, in the case of several special reports, to General F. A. Walker, former Superintendent of Census, for examination. Upon the return of the proofs from the different parties to whom they were sent the marks are all transferred to the office set and forwarded the Foreman of Printing, Government Printing Office, for corrected galley proof, or, in case the changes are insignificant, for revise in pages. Upon the receipt of corrected proofs they are carefully examined to see that the alterations have all been properly made. If the revises are correct, the proof is stamped "ready for press" and one set is sent the Public Printer. It frequently happens, however, especially when illustrations are inserted in the body of the report, that two or three galley proofs, as well as two or three revises in pages, are required.

The following statement shows the amount and character of business received transacted, and disposed of during the period, and on hand, pending, and undisposed of, at the dates specified below, in the census division of the Secretary's office, Department of the Interior :

Character of business.	Pending April 24, 1885.	Received from April 24, 1885, to December 31, 1885.	Transacted and disposed of from April 24, 1885, to December 31, 1885.	Amount pending January 1, 1886.	Amount received during calendar year, 1886.	Amount transacted and disposed of during calendar year 1886.	Amount pending January 1, 1887.	Amount received during calendar year 1887.	Amount transacted and disposed of during calendar year 1887.	Amount on hand, pending and undisposed of, on March 1, 1887.
Letters received.....	67	961	1,023	5	1,105	1,108	2	184	182	4
Letters written.....			1,096			1,426			126	
Unpublished volumes of final report on Tenth Census.....	12		2	10		5	5		1	*4

* The four volumes of the final report on the Tenth Census yet to issue embrace :
 Volume 17, part 2, Report on the Water Power of the United States.
 Volume 19, part 2, Report on Social Statistics of Cities.
 Volume 21, Report on Deaf, Dumb, Blind, Insane, Idiotic, &c.
 Volume 22, Mechanical Reports and Ice Manufacture.
 These volumes, with the exception of No. 21, are practically complete. Of volume No. 21, 318 pages are in type.

Average amount and character of business performed, transacted, and disposed of during the periods specified, by the employés in the census division of the Secretary's office, Department of the Interior.

Owing to the peculiar (ofttimes technical) character of the labor performed in the census division no attempt has been made to keep an account of the work of the employés.

The following statement shows the average number of employés in the census division of the Secretary's office, Department of the Interior, during the periods specified.

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884*.....												
1885.....				1	6	7	7	7	7	7	6	6
1886.....	6	6	6	6	6	4	4	2	6	6	4	4
1887 (to March 1).....	3	3										

* Census division not established until April 24, 1885.

The maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least, during the periods specified, in the census division of the Secretary's office, Department of the Interior.

No account has been kept of the business disposed of by each employé, owing to the character of the work performed in the division, namely: That of reading and revising proofs of the final report on the Tenth census.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the census division of the Secretary's office, Department of the Interior:

Calendar year.	No. of employés.	Average No. of days present.	Average No. of hours employed daily.	No. by proxy.
1884*.....				
1885.....	6	196	7	
1886.....	5	266	7	
1887 (to March 1).....	3	46	7	

* Census division not established until April 24, 1885.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days, in the census division of the Secretary's office, Department of the Interior, during the periods specified:

	* 1884.	* 1885.	1886	1887 (to Mar. 1).	Character of business.
Maximum number of days		201	285	48	Revising proofs.
Minimum number of days		118	35	42	Holding copy.

* Census division not established until April 24, 1885.

ASSISTANT ATTORNEY-GENERAL'S OFFICE.

Report of the Assistant Attorney-General's office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

The business transacted in the office of the Assistant Attorney-General consists largely of the consideration of cases appealed from the Commissioner of the General Land Office to the Secretary of the Interior, which may be classified as follows:

(1) Cases wherein a claimant under the pre-emption, homestead, timber-culture, mineral, swamp-land, desert-land, or timber-land law, asserts a claim as against the Government only—which claim the Government denies.

(2) Cases wherein two or more parties (prior to issuance of patent to either,) claim as against each other.

(3) Cases wherein the claims of individuals, under any of the before-mentioned laws, are contested by a railroad company, claiming under its grant.

(4) Cases of conflict between a claimant under any of the before-mentioned laws, and a private grant, military grant, or Indian reservation.

(5) Cases wherein the agents of the General Land Office have reported that fraud has been perpetrated against the Government, and the Land Office has canceled the entry (prior to patent), whereupon the party accused appeals to the Department.

(6) Cases wherein, upon report of a special agent, the Commissioner of the General Land Office recommends that suit be instituted to set aside a patent already issued.

(7) Applications to have the record of cases in the General Land Office, wherein that office has refused an appeal, certified to the Department for examination.

(8) Aside from cases brought from the General Land Office by appeal or certiorari, numerous other questions from said office are presented informally (in writing or verbally), with a request for the legal opinion or advice of the Assistant Attorney-General.

(9) The preparation, examination, and revision of circulars to be issued from the General Land Office, the Secretary's approval of such circulars being essential to their validity.

Besides the above classes of cases and questions coming up from the General Land Office, the Assistant Attorney-General's office is called upon to perform numerous additional duties.

(10) The examination and consideration of cases of alleged frauds upon the Government in connection with the public lands, transmitted from the Department of Justice, with request for report embodying the views of this Department as to whether or not suit should be instituted by that Department to set aside patent already issued.

(11) The consideration of bills prepared by committees of the Senate or the House of Representatives, and forwarded by their chairman to the Department with request for its opinion relative thereto.

(12) The consideration and preparation of replies, in answer to requests by the Secretary or either of the assistant secretaries, or the heads of the several Bureaus and divisions of the Department (Patent Office, Indian Office, Railroad Office, &c.) for the legal opinion of the Assistant Attorney-General relative to the construction of some specific law.

(13) The answering of letters of inquiry relative to the status of cases before the office.

(14) The hearing of cases argued orally before the Assistant Attorney-General (sometimes including the Secretary or one of the assistant secretaries).

(15) The selection of the more important departmental decisions relative to land cases, for publication in book form, their preparation for the press, proof-reading, indexing, &c.

(16) A large amount of work of a character too miscellaneous for classification, as the examination into the validity of contracts, the sufficiency of bonds, the preparation of reports, &c.

The number of employés in the office of the Assistant Attorney-General from the beginning of the year 1884 until the present time has been ten, consisting of chief law clerk, seven lawyers, one stenographer, and one (lady) type-writer.

Zach. Montgomery, Assistant Attorney-General.—The Assistant Attorney-General rarely prepares personally decisions in contested cases (such as are described under Nos. 1 to 7 of the preceding statement), his time being fully occupied in the consideration and preparation of replies to inquiries submitted by the Secretary, assistant secretaries, or heads of Bureaus, the hearing of cases argued orally before him, and other miscellaneous labors (see Nos. 12, 14, and 16 of preceding statement). It devolves upon him also to give audience to the numerous attorneys and others having business before his office, answer their questions, listen to their explanations, preside over the meetings of the board of lawyers held three or four times each week (as hereinafter set forth), examine into the correctness of decisions passed by that board, and perform many other duties not capable of being briefly described.

E. F. Best, chief law clerk.—He assists the Assistant Attorney-General in his various duties. Before him come the cases transmitted to the office, which he briefly looks into and assigns for fuller examination to the lawyer of the Assistant Attorney-General's force who is most familiar with the question involved (homestead, mineral, private grant, swamp-land, &c.). These duties occupy the greater portion of his time. Nevertheless he writes a few decisions, generally such as involve the more delicate and complicated questions coming before the office.

V. Brent, L. R. Smith, F. L. Campbell, S. V. Proudfit, J. B. McNamee, H. M. Friend, and R. B. Lamon are the other lawyers of the office force.

Mr. Proudfit is editor of the volume of Land Decisions printed annually by the Department, containing the more important cases decided, circulars issued, &c. This volume, as a work of reference to the lawyers formulating the decisions of the Department, tends to uniformity and consistency of departmental decisions, and to the dispatch of public business. Formerly, when a lawyer upon the staff of the Assistant Attorney-General wished to make a thorough investigation of the line of previous decisions on a given subject, he was compelled to go to another part of the building, and there, in the way of others and at great inconvenience to himself, examine and copy from the official records, and if any other lawyer upon the force desired to investigate some other subject rendering necessary an examination of the same book, he must be delayed for hours or days until he could obtain access thereto. In short, these published Land Decisions are of the same use to the Department that the printed "Statutes at Large" are both to the members of Congress who make the laws, and to lawyers who desire to become familiar with them, and whose work would be greatly delayed if they were compelled to depend upon a single manuscript official record of the laws enacted in the past.

To select from the numerous decisions rendered those which involve leading and more important principles, furnishing precedents for future action, to prepare a careful syllabus for each, to eliminate portions of lengthy statements not necessary to an elucidation of the principle involved in the case, to read proof and revise, to oversee the making up into shapely pages a volume of from six hundred to nine hundred pages annually, and finally to make a comprehensive, complete, and well-arranged index thereto, demands the full time and attention of one of the lawyers upon the Assistant Attorney-General's force, so that he writes but few decisions.

The duties of the stenographer are, in part, indicated by his official designation, although he performs other miscellaneous duties; he acts as librarian, keeps a record showing to what lawyer the different cases or letters are assigned for examination or answer, and when not occupied in such miscellaneous work examines and formulates decisions in such cases as do not require a discussion of difficult and complicated questions of law.

The operator of the type-writer is fully occupied in making type-written copies of the decisions, opinions, and letters written by the Assistant Attorney-General and the several lawyers upon his staff. She is also to some extent a stenographer, being able to read the short-hand notes of the official stenographer without the necessity of his rewriting them before putting them through the type-writer.

Statement showing in detail the methods of transacting business in the office of the Assistant Attorney-General, Department of the Interior, beginning with the receipt of business matter in said office, and showing in consecutive order the action taken thereon by each of the employés by whom it is considered or acted upon, until the same is finally disposed of.

Nearly all cases or communications intended for the action of the Assistant Attorney-General's office (whatever their original source), are received through the division of lands and railroads, where they have previously been briefed, registered, and

filed. Occasionally communications are received through the office of the Commissioner of Indian Affairs, the Pension Office, or some other office. Sometimes the Secretary or one of the Assistant Secretaries forwards *directly* or requests verbally the opinion of the Assistant Attorney-General upon some point of law.

Communications from outside the Secretary's office may, for convenience of consideration, be divided into two classes: (1) Cases on appeal from the General Land Office; (2) Miscellaneous, consisting of all other communications.

(1) All miscellaneous communications registered in the division of lands and railroads intended for the office of the Assistant Attorney-General, are at once sent to his table, and are by him or the chief law clerk answered or assigned to some member of the legal force or the stenographer to answer.

(2). Cases transmitted from the General Land Office on appeal are not at once forwarded to the Assistant Attorney-General's Office, there being neither room nor convenience therein for filing several thousand cases. They are therefore retained on file in the division of lands and railroads until sent for by the Assistant Attorney-General. The appeals for a given month are generally brought in at once—*i. e.*, an average of from one to two hundred cases.

(3) If a very important and difficult case be on the "docket" for a given month, it may be assigned by the assistant Attorney-General or chief law clerk for consideration to the lawyer who is most experienced and competent to deal with the peculiar questions involved therein. The simpler class of cases, however, are taken up, in the order in which they were appealed, by any lawyer who may have finished the work previously assigned him.

(4) The lawyer to whom the case or communication is assigned examines into the facts and the law, formulates in manuscript his decision, conclusion, or reply (as the case may be), and furnishes it to the lady clerk, who makes a copy thereof upon the type-writer.

(5) A simple answer to a letter of inquiry, involving no legal principle, is then initialed by the person who prepared it, and by him placed before the Assistant Attorney-General, who (if he approves it) also initials it and forwards it to the Secretary for his signature.

(6) Where a legal principle is involved, the type-written decision is brought, by the lawyer preparing it, before the "board" of lawyers of the Assistant Attorney-General's office—sitting in "committee of the whole," as it were, with the Assistant Attorney-General for chairman. This "board" meets every Monday, Wednesday, and Friday afternoon, and if more decisions have accumulated for reading and consideration than can be disposed of during those days, an extra meeting is held on Saturday afternoon.

(7) At these meetings of the board, the lawyer who has prepared a decision reads it; whereupon the Assistant Attorney-General, or any lawyer upon his force who may feel so inclined, may criticise it or comment upon it. Sometimes a decision is agreed to as written; sometimes slight and merely verbal changes are made; sometimes the decision as written is voted down, and the writer thereof (if convinced by the arguments presented that it should be reversed) writes a contrary decision. If the one who wrote it is not convinced that it should be reversed, it is assigned to one of those who is so convinced. The Assistant Attorney-General, however, is the arbiter in determining whether or not an opinion is in shape to be submitted to the Secretary for his consideration; and in deciding that question he exercises his own judgment, in view of all the light which his entire staff of assistants can throw upon the question to be determined.

This system of board meetings and free discussions of law questions, in which his entire staff of attorneys are allowed to participate, was first inaugurated by the present Assistant Attorney-General, immediately after he entered upon the duties of his office in May, 1885.

Statement showing the number of days and the time and attention devoted to the consideration and transaction of business during the years 1884, 1885, 1886, and 1887 until April 1, by the employés in the office of the Assistant Attorney-General, Department of the Interior.

During the three years and three months mentioned, there has not been a day's absence of any member of the force, beyond the thirty days' annual leave of absence, except for sickness.

In 1884 the Department was open for business 307 days. Allowing each employé thirty days' leave of absence, the number of days' work due from each was 277. The average number of days present was 274. This would indicate an average of three days' sickness for each employé during 1884.

In 1885 the Department was open for business 301 days. Deducting thirty days' leave of absence, each employé should have worked 271 days. The average number was 275 days. Although there was some sickness (the exact amount indeterminate),

the loss therefrom was more than made up by the fact that several of the employés omitted to take in full the customary thirty days' leave of absence. Some were absent but five days during the year; others from eight to twenty-five. The maximum number of days any employé was present was 296½; minimum, 266.

In 1886 the Department was open to business 305 days. More of the employés took their full leave of absence than the preceding year; and there was more sickness. The average attendance was 269½ days. The shortest period of presence was 257 days—by one who took twenty-five days of absence, and was sick twenty-three days. Maximum, 297 days.

The number of hours' work is nominally seven; actually, considerably more. The meetings of the board are generally prolonged until some little time after 4 o'clock. On other occasions it is not an uncommon thing for one or other of the employés to remain at work until half after 4 or later. The editor of the Land Decisions frequently finds it necessary to work evenings, especially when the book is nearly finished—in preparing the index.

Statement showing the amount of business transacted and disposed of by the office of the Assistant Attorney-General, Department of the Interior, during the periods specified below.

The blank furnished to be filled out or substantially followed asks for a statement of the amount of business *received*, transacted, and disposed of, and the amount *on hand* at several specified dates.

The Assistant Attorney-General's office keeps no full record of cases and letters received. There is no need that it should do so; such record, if kept, would be simply a duplicate of the record kept by the division of lands and railroads, which shows fully and clearly all cases and letters transmitted to the office of the Assistant Attorney-General. The number is continually changing, not only day by day, but hour by hour—varying from twenty to two hundred.

Reference has before been made to requests from the Secretary, Assistant Secretaries, or chiefs of divisions for the opinion of the Assistant Attorney-General regarding some disputed point of law. The present Assistant Attorney-General, during the year 1885 (after his appointment, May 25), wrote such opinions to the amount of 266 (type-writer) pages; during 1886, 415 pages; during January, February and March, 1887, 76 pages.

During the year 1884 there were written in the office of the Assistant Attorney-General 617 decisions; 31 answers to motions for review; 105 letters regarding timber trespass, and 196 miscellaneous letters—total, 949; or an average of 79 per month.

During the year 1885 there were written 561 decisions; 67 answers to motions for review; 131 letters relating to timber trespass—and 237 miscellaneous letters—total, 996; or an average of 83 per month.

During 1886 there were written 934 decisions; 45 answers to applications for review, and 172 miscellaneous letters—total, 1,151; or an average of 96 per month.

(In 1886 nearly all the letters relative to timber trespass were written in another division, and the few that were prepared in the Assistant Attorney-General's Office are entered under the head "Miscellaneous"—which also includes 38 answers to requests for the institution of suit by the United States to vacate patent.)

During the first three months of 1887 the work of the office has been as follows:

	January.	February.	March.	Total.
Decisions.....	81	76	84	241
Miscellaneous.....	45	14	22	91
	126	90	106	332

In 1884 the lawyer editing the volume of Land Decisions wrote but 19 cases and 5 miscellaneous letters (out of 949); in 1885 a few less, in 1886 a few more. In attempting to arrive at the average number of decisions and letters written by each employé, the editor of the Land Decisions and the decisions prepared by him should be omitted.

The chief law clerk and the stenographer are each a considerable portion of the time engaged in other work than writing decisions or letters (of the kind that become matters of record); hence in estimating an average these two should be accounted as one.

Estimated upon such a basis, the average result would be as follows: During 1884, 8 cases per month; 1885, 11 cases per month; 1886, 13 cases per month; 1887 (first three months), 15 cases per month.

(It should be recollected that during the first quarter of 1887 only two or three days' leave of absence and four or five days' sickness are to be deducted. When the employes have each taken his thirty days' leave of absence this last average will necessarily be considerably reduced.)

Almost daily one or more letters are written in the Assistant Attorney-General's office that do not go upon the Department records anywhere. Such, for example, as letters in reply to inquiries made as to the status of cases, and the like.

The following statement shows the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified, in the office of the Assistant Attorney-General, Department of the Interior:

EMPLOYÉ DOING THE MOST.—MAXIMUM.

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	48	17	22	21	11	23	17	19	20	16	15	19
1885.....	24	14	22	39	30	22	20	8	18	26	31	21
1886.....	28	6	39	48	47	9	53	50	81	20	19	44
1887 (to March 1).....	52	22	44	.....	.....	.....	.....	.....	.....	.....	.....	.....

EMPLOYÉ DOING THE LEAST.—MINIMUM.

1884.....	1	1	3	0	1	2	4	4	3	2	2	4
1885.....	3	1	4	3	3	1	3	3	0	4	1	1
1886.....	2	3	5	2	4	2	0	2	0	4	1	3
1887 (to March 1).....	3	1	0	.....	.....	.....	.....	.....	.....	.....	.....	.....

It should be understood that the number of cases disposed of during any given month by any particular employé is absolutely no criterion whatever by which to judge of his ability or diligence. For instance, an employee resigns, quitting work May 31; a decision written by him on that day, however, does not obtain the Secretary's signature until June 1st or 2d. But this does not indicate that this one letter constitutes the entire month's work of any employé.

Again, in February, 1885, the then editor of the volume of Land Decisions prepared but one decision, his time being nearly all occupied by his regular work. So the record, in the space allotted to February, 1885, showing that the employé doing the least prepared one decision, is no correct indication of the amount of work done by any employé.

Again, the most competent and diligent lawyer may formulate the fewest decisions in the course of a month or a year and the least competent make the largest showing as to number. For instance: In December, 1883, the case of the Atlantic, Gulf and West Indian Transit Company was allotted to one of the ablest lawyers on the force. He spent a month in its investigation, working an average of more than eight hours a day. About the middle of January, 1884, the opinion prepared was placed before the Secretary, who signed it January 21. The legal question at issue being decided, the stenographer, who knew nothing whatever of the law in the case, wrote up forty-two decisions in cases in which said company was plaintiff, within three days thereafter—while another difficult case was given to the lawyer in which to prepare an opinion. It thus comes about that the lawyer who did the most work and the most difficult work of any member of the force at that time, stands credited with but one decision in January and one in February, while the stenographer, who attended to such matters less than half his time, stands credited with the preparation of more than twice as many decisions during that month as any other member of the force. In a similar manner the eighty-one cases constituting the maximum for September, 1886, were nearly all formulated as fast as the type-writer could print them, in pursuance of the "Thomas Rees" decision, the examination of which occupied more than a month.

Some cases or letters coming before the office to be acted upon or answered consist of but a single page, a decision or answer to which can be formulated in five minutes, and consist of but as many lines; while others (like the Buena Vista and Lake Kern case, under consideration at this date) require the reading of more evidence and other documents than the entire contents of the Holy Bible.

BUREAU OF LABOR.

Report of the Bureau of Labor on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR, BUREAU OF LABOR,
Washington, D. C., May 28, 1887.

SIR: In compliance with the request of the chairman of the Senate Select Committee appointed "to inquire into and examine the methods of business and work in the Executive Departments," embodied in your circular letter of the date of March 23, 1887, I have the honor to submit the inclosed statement.

Very respectfully, your obedient servant,

OREN W. WEAVER,
Acting Commissioner.

The SECRETARY OF THE INTERIOR.

An examination of the departmental forms furnished for the transmission of information relative to methods of business and work in the Executive Departments shows that only those calling for "the average number of employes by months" and "the average number of days and the time and attention devoted to the consideration and transaction of business" can be categorically replied to by this Bureau. The data relative to these two subjects will be found embodied herein.

In a general way simply, the reasons for which are set forth below, can the information desired under the following heads be given:

Statement showing the principal items of business transacted;

Statement showing in detail the methods of transacting business;

Statement showing the amount and character of business received, transacted, and disposed of and on hand, pending and undisposed of, &c.;

Statement showing the maximum and minimum amount of business transacted and disposed of by the employe doing the most and the employe doing the least, &c.;

Statement showing the maximum number of days devoted to business by the employe present for the greatest number of days, and also the minimum number of days devoted to business by the employe present for the least number of days.

At the first session of the Forty-eighth Congress the following act was passed:

"An act to establish a Bureau of Labor.

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be established in the Department of the Interior a Bureau of Labor, which shall be under the charge of a Commissioner of Labor, who shall be appointed by the President, by and with the advice and consent of the Senate. The Commissioner of Labor shall hold his office for four years, and until his successor shall be appointed and qualified, unless sooner removed, and shall receive a salary of \$3,000 a year. The Commissioner shall collect information upon the subject of labor, its relation to capital, the hours of labor, and the earnings of laboring men and women, and the means of promoting their material, social, intellectual, and moral prosperity. The Secretary of the Interior, upon the recommendation of said Commissioner, shall appoint a chief clerk, who shall receive a salary of \$2,000 per annum, and such other employes as may be necessary for the said Bureau: Provided, That the total expense shall not exceed \$25,000 per annum. During the necessary absence of the Commissioner, or when the office shall become vacant, the chief clerk shall perform the duties of Commissioner. The Commissioner shall annually make a report in writing to the Secretary of the Interior of the information collected and collated by him, and containing such recommendation as he may deem calculated to promote the efficiency of the Bureau."

This act was approved by the President June 27, 1884. It was carried into effect by the appointment of the Commissioner January 31, 1885. The chief clerk was appointed February 3, 1885.

It will be seen that the duties devolved upon the Bureau are, in their nature, greatly different from those of most other bureaus. Many of the executive branches of the Government are engaged in the examination of accounts, or the investigation of claims, or in work of a similar nature, in which there are specific lines to be followed, under laws more or less definite, the work progressing through various stages, each of which is susceptible of summation as to the number of persons employed, the exact character of the duties, the amount of work performed, &c. In other words, the work is such as, from its nature, becomes routine in character.

The work of this Bureau, however, is widely different. It is engaged in original investigation into the social and economic condition of the people, the results of which are presented in annual reports. The duties of the employés of the Bureau are of such a multifarious and special character, and so interchangeable, that the forms of inquiry suitable to elicit from other offices a complete statement of methods of work are, in great measure, inapplicable. Such information as can be given, therefore, must be given without special reference to these forms.

The force of the Bureau consists, for field work, of 18 special agents, employed permanently, and such assistants and experts, employed temporarily, as may be necessary. The office force allowed for tabulation, classification, and collation of material collected by the field force consists of 16 persons. This force is not divided into divisions, but all work practically as one division. The office force should be increased to at least 20 clerks of all grades:

The following statement shows the average number of employés, by months:

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....												
1885.....		22 ¹ ₃₈	32 ⁶ ₃₁	6	10 ³⁰ ₃₁	22 ²⁷ ₃₀	25 ²³ ₃₁	24 ¹³ ₃₁	23 ²⁸ ₃₀	21 ¹³ ₃₁	19 ²⁵ ₃₀	19 ¹³ ₃₁
1886.....	19	18 ¹⁹ ₃₁	18	18	17 ³⁰ ₃₁	16	24 ¹⁶ ₃₁	34 ¹³ ₃₁	38 ²³ ₃₀	41 ²⁰ ₃₁	44 ² ₃₀	43 ¹³ ₃₁
1887 (to March 1).....	44 ⁴ ₃₁	43 ¹⁸ ₂₈										

The following statement shows the average number of days and hours per day devoted to business:

Calendar year.	Number of employés.	Average number of days present.	Average number of hours employed daily.
1884.....			
1885.....		34	132.3
1886.....		54	145.5
1887 (to March 1).....		54	39.1

Appointments of employés have been made and terminated at various dates. The service of some has been continuous, but that of a considerable number, employed for temporary work, has been brief. The average number of possible days of service (days when the Bureau was officially open) for each was, in 1885, 133.8; in 1886, 154.3; in 1887, to March 1, 40.7. The average days of absence for each was, in 1885, 1.5; in 1886, 8.8; in 1887, to March 1, 1.6.

Only the days when the Bureau was officially open have been taken into account. The Bureau was closed as follows:

Closed.	1885 (from Jan. 31).	1886.	1887 (to Mar. 1).
Sundays.....	48	52	9
Regular holidays.....	5	6	2
By special order.....	5.5	2	
Total.....	58.5	60	11

In regard to the daily hours of employment it may be stated that some employés have habitually worked more than the seven required, and that during a period of four months or so in 1886 nine worked daily about three hours extra. As no record was kept of this, it is not included above.

The agents and others in the field are kept constantly employed in collecting information upon such special lines of investigation as may be laid out by the Commissioner with the approval of the honorable Secretary of the Interior, or as are directed to be undertaken by Congress. They are provided with a complete series of inquiries relating to the investigation on hand upon which information is desired, with carefully prepared explanations and directions relative to each inquiry, and are held strictly to the collection of just what is called for. The result of their work is forwarded to the office from time to time, and as quickly as possible is taken in hand by the office force.

The first work in the office is the examination of this material by some of the most expert clerks, with a view to the discovery of errors. Such as are trivial, and those

in which the proper correction is manifest, are rectified by the examiner. In the case of others a duplicate of the agent's report is transmitted to him, with a request for correction or explanation, or if his personal presence is considered necessary he is directed to report at Washington. When this preliminary work has been done all of the material which is susceptible of statistical treatment is then ready for tabulation. When practicable the details relating to each unit of investigation are presented in the tabulation, to the end that the basis on which the resulting summaries are established may be seen. In the scheme of tabulation it is aimed to arrange the various points in such a way that their logical connection may be shown, and if the work is one that involves a series of tables these are arranged in a natural and progressive order, so that the regular forward movement to the conclusion may be apparent.

The only routine work of the Bureau is what relates to the management of its own employés and to the transaction of its business with the Department of the Interior.

The number of letters received has been as follows:

1885	1,650
1886	7,545
1887 (to March 1)	2,329

All letters requiring reply are answered upon the day of their receipt, if practicable. In case information is asked for, the preparation of which requires time, the answer is made at the earliest possible date. All letters requiring an answer receive one, and all information asked for, proper for the Bureau to furnish, and within its means, is forwarded as soon as possible. Its correspondents may be classified as with its agents, with the Department of the Interior, with other officials, and with the public.

The number of letters written has been as follows:

1885	1,240
1886	1,285
1887 (to March 1)	232

Number of First Annual Reports mailed:

1886	7,763
1887 (to March 1)	954

Number of volumes of the Report on Labor and Capital mailed:

1885	6,373
1886	2,131
1887 (to March 1)	96

BUREAU OF EDUCATION.

WASHINGTON, D. C., June 17, 1887.

SIR: In obedience to the circular letter of the Secretary of the Interior, dated March 23, 1887, directing that heads of Bureaus prepare for their several offices the statements required by the Select Committee of the Senate, appointed "to inquire into and examine the methods of business and work in the Executive Departments of the Government, &c.," I have the honor to submit herewith the reports of the chiefs of divisions of the Bureau of Education, compiled and tabulated upon the blank forms furnished by the Department of the Interior.

Very respectfully, your obedient servant,

N. H. R. DAWSON,
Commissioner of Education.

The honorable the SECRETARY OF THE INTERIOR.

RECORD DIVISION.

Report of the record division, Education Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the record division of the Education Office, Department of the Interior.

Opening the mail, answering letters, acknowledging documents, and sending out the documents and publications of the office.

In addition to the above, the slips used in sending out documents are addressed, the various letter-books, requisition books, and other press-copy books are indexed.

To prevent the fading and destruction of letters in the letter-press books, copyists transcribe the official correspondence of the office into record books furnished by the Interior Department.

By the laborers.—Sweeping and cleaning rooms, building fires, mailing documents, running errands on official business, and a variety of other services too numerous to mention.

In addition to the above, owing to the lack of watchmen for the building, the laborers are required to serve as watchmen after office hours, on Sundays, and holidays, without compensation.

Statement showing in detail the method of transacting business in the record division of the Education Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

A letter received is opened by the chief clerk, and at once stamped, numbered, and indexed. It is then read by the Commissioner or the chief clerk. If it is found to be a request for documents, the letter is referred to a clerk who writes a slip indicating what document is desired. On the back of the letter is written what has been sent, and the date of sending. The mail slip is then sent to the document room, and the proper volume is wrapped by one of the laborers, and mailed on the same day that the slip is received.

The daily routine of business is as follows:

Mail matter is opened. Letters are stamped with date of receipt, numbered, indexed, answered, and filed, with the action noted on the brief.

Documents received are acknowledged and are then sent to the library.

Letters received are classified under the following heads:

- (1) Those asking for specific information such as will require a written reply.
- (2) Those that can be answered by sending some one of the publications of the office.
- (3) Replies to official inquiries.

The time within which letters of the first class can be answered varies from one day to one week. It is a rule of the office that all letters shall be answered, if possible, on the date of receipt.

Letters that can be answered by sending an official document are attended to on the day of receipt.

Letters of the third class are filed for reference.

By the laborers.—Copying the official correspondence of the office in letter-press books.

When the annual report of the Commissioner is delivered to the office, each volume is wrapped in stout paper, a mailing slip is pasted on each, and each one is securely tied, placed in bags, and loaded upon the mail-wagon.

The same is done with each of the publications of the office.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the record division of the Education Office, Department of the Interior:

Character of business.	During calendar year 1884.	During calendar year 1885.	During calendar year 1886.	During calendar year 1887, January 1 to March 1.	Transacted and disposed of during calendar year 1884.*	On hand, pending, and undisposed of at close of the calendar year 1884.†	Transacted and disposed of during calendar year 1885.*	On hand, pending, and undisposed of at close of the calendar year 1885.†	Transacted and disposed of during calendar year 1886.*	On hand, pending, and undisposed of at close of the calendar year 1886.†	On hand, pending, and undisposed of on March 1, 1887.‡
Letters received	9,868	9,980	9,328	2,471	.....	.....	.....	.....	.....	.....	.....
Letters sent out	6,769	22,074	17,585	2,331	.....	.....	.....	.....	.....	.....	.....
Acknowledgments received	56,244	39,894	46,561	7,882	.....	.....	.....	.....	.....	.....	.....
Documents sent out	351,061	123,768	{ 90,839 } { 129,641 }	(||)	.....	.....	.....	.....	.....	.....	.....
Documents received	425,500	260,650	108,800	25,000	.....	.....	.....	.....	.....	.....	.....

* All.

† January 1 to June 30, 1886.

‡ Covered by "Documents sent out" from July 1 1886, to March 1, 1887.

† None.

§ July 1, 1886, to March 1, 1887.

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employés in the record division of the Education Office, Department of the Interior :

Year.	Letters received and answered during—											
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	697	766	810	656	392	467	795	977	800	1,379	1,192	937
1885.....	865	1,122	833	1,103	1,111	737	914	741	621	598	590	695
1886.....	624	838	1,140	631	568	564	653	577	480	520	1,565	1,168
1887.....	1,153	1,318	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the average number of employés in the record division of the Education Office, Department of the Interior, during the periods specified :

CLERKS.

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	8	8	8	8	8	8	8	8	8	8	8	8
1885.....	8	8	8	8	8	8	9	8	8	8	8	8
1886.....	7	7	7	7	8	8	8	8	8	8	8	8
1887, to March 1.....	8	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

LABORERS.*

1884.....	7	7	7	7	7	7	7	7	7	7	7	7
1885.....	7	7	7	7	7	7	7	7	7	7	7	7
1886.....	7	7	7	7	7	7	7	7	7	7	6	6
1887, to March 1.....	6	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

*All the laborers of the Bureau are attached to the record division, though rendering service in all parts of the building as needed.

Statement showing the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified in the record division of the Education Office, Department of the Interior.

The reasons why no such account as called for by this statement has been kept are as follows :

- (1) It has been impossible, owing to the nature of the work in the record division.
- (2) It has been customary to assign certain portions of the work to certain persons to do. On some days it has taken a large portion of the time to perform such duties, and on some days the work has not been so great. On other days more work has been brought into the division than could possibly be performed, and the clerks of the division have frequently worked over hours to complete it, and thus a general average has been made.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the record division of the Education Office, Department of the Interior :

Calendar year.	Clerks.			Laborers.		
	Employés.	Average days present.	Average hours employed daily.	Employés.	Average days present.	Average hours employed daily.
1884.....	8	277	6½	7	277	9½
1885.....	8	271½	6½	7	271½	9½
1886.....	8*	275	6½	7	275	9½
1887, to March 1.....	8	48	6½	6	48	9½

* Seven for four months.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days in the record division of the Education Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to Mar. 1).
Maximum number of days.....	307	301½	305	48
Minimum number of days.....				

STATISTICAL DIVISION.

Report of the statistical division, Education Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the statistical division of the Education Office, Department of the Interior.

(1) The tabulation of educational statistics furnished in response to circulars and forms of inquiry.

(2) The discussion of the tables.

(3) The compilation of information on educational subjects, from printed sources, native and foreign.

(4) The direction of printing the above, either in annual reports, special reports, circulars of information, or bulletins.

(5) The preparation, sending out, receiving, and verifying statistical returns from several thousands of school systems, schools, colleges, libraries, and other learned institutions and correspondents.

(6) The composition and preparation of letters sent out on statistical subjects in reply to inquiries received.

Statement showing in detail the methods of transacting business in the statistical division of the Education Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the Education Office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

The material for the statistical tables is received from the chief clerk in the form of special written returns or printed reports and catalogues; it is then given to the tabulators, who classify it, verify it, and arrange it into tables, and turn them over to the person designated to study and discuss them. The proof-reader next prepares them for the press, and forwards them, through the chief of division, the chief clerk, and the stationery and printing division of the Department, to the foreman of printing. The proof is received in due course through the same channel, read, and returned.

Statement showing the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the statistical division of the Education Office, Department of the Interior.

Amount disposed of during 1884.—Finished Annual Report for 1882-'83, 1,165 pages, made up from reports of 10,128 institutions and systems. Commenced Annual Report for 1883-'84. Prepared for the press and read the proof of seven Circulars of Information, aggregating 744 pages. Also five Bulletins, aggregating about 90 pages.

Business disposed of, 1885.—Finished compiling Annual Report for 1883-'84, 1,214 pages, from reports and returns of 11,663 institutions and systems. Commenced Annual Report, 1884-'85. Prepared for the press and read the proof of five Circulars of Information, aggregating 711 pages.

Business disposed of 1886 and to March 1, 1887.—Finished Annual Report for 1884-'85, 1,153 pages; compiled from the reports and returns of institutions and systems. Annual Report for 1885-'86 in process of preparation March 1, 1887. Compiled, prepared for the press, and read the proof of the Special Report on the Educational Ex.

libits and Conventions at the New Orleans Exposition, 962 pages; Special Report on Museums of Anatomy, 65 pages. Prepared for the press and read the proof of three Circulars of Information, aggregating 258 pages. On hand March 1, 1887, one Circular of Information not yet prepared for the press; also the unfinished report for 1885-'86 mentioned above.

The following statement shows the average number of employés in the statistical division of the Education Office, Department of the Interior, during the periods specified:

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	19	19	19	19	19	19	19	19	19	19	19	19
1885.....	19	19	19	19	19	19	19	19	19	18	19	19
1886.....	20	20	20	20	20	20	20	19	19	19	13	13
1887 (to March 1).....	14	15	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Statement showing the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified, in the statistical division of the Education Office, Department of the Interior.

The character of the work done by the statistical division is such that it cannot be recorded in tabular form. Appended is a memorandum showing the nature of the work done by one employé during one week.

Report of work done by, or under direction of, Miss Annie Tolman Smith for the week ending April 16.

Monday, April 11, I received the summary of Table III and proceeded immediately to the study of the same and wrote out the discussion, also added to the historical portion matter drawn from four State reports recently received.

Tuesday, April 12, I spent in making notes for Table I, from reports recently received.

Wednesday, April 13, studied Table IV and wrote up the discussion.

Thursday, Friday, and Saturday, April 14-16, were spent in the analysis of Table VI, with comparative study of the same as reported in 1884-'85 and 1880.

During the week my assistant filled up the table of teachers' salaries for certain foreign countries, under my direction. A copyist copied the statistical part of the foreign table of elementary instruction; another completed the copy of historical matter relating to Table III (29 pages of foolscap), and copied 4 pages relating to statistics of elementary education in foreign countries.

A third employé made studies relating to Tables I and III, under the following heads: Teachers' institutes; number of trained teachers employed in each State; permanency of teachers.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the statistical division of the Education Office, Department of the Interior:

Calendar year.	Number of employés.	Average number of days present each.	Average number of hours employed daily.
1884.....	19	277	6½
1885.....	19	271½	6½
1886.....	19	275	6½
1887 (to March 1).....	14	48	6½

The number of employés during the calendar year has varied, and no complete record of it has been kept. There have been no well-defined lines separating the different divisions, and persons have been in one division or another at different times, as the state of the work to be done required.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the statistical division of the Education Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to Mar. 1).
Maximum number of days.....	307	301½	305	48
Minimum number of days.....				

LIBRARY AND MUSEUM DIVISION.

Report of the library and museum division, Education Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the library and museum division of the Education Office, Department of the Interior.

- (1) Entering, stamping, and labeling all material intended for the library.
- (2) Distributing the material for the various sections of the library.
- (3)
 1. Indexing books and pamphlets.
 2. Indexing and filing catalogues of colleges and universities.
 3. Indexing and filing catalogues of secondary schools.
 4. Indexing and filing catalogues of preparatory schools.
 5. Indexing and filing catalogues of normal schools.
 6. Indexing and filing catalogues of other institutions.
- (4) Preparing card catalogue of the contents of the library.
- (5) Making references to special information for the employés of the office and for other investigators.
- (6) Preparing material for the bindery.
- (7) Caring for the museum.

Statement showing in detail the methods of transacting business in the library and museum division of the Education Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each until the same is finally disposed of and notice thereof duly given to the proper party.

- (1) All material intended for the library is sent direct from the chief clerk's room.
- (2) When it reaches the library it is entered, stamped, and labeled.
- (3) The material then goes to the various sections where it is properly classified.
 1. Foreign books to one section.
 2. Educational journals to another section.
 3. State and city reports on education to another section.
 4. Current periodical literature to another section.
 5. College, school, and university catalogues to another section.
- (4) The material is then filed and indexed and made ready for easy reference.
- (5) All material not in bound form, or such as need binding, is prepared for the bindery.

Statement showing the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the library and museum division of the education Office, Department of the Interior.

The character of the work done in this division is such that it could not be reduced to a tabular statement.

From August 2, 1886, to December 13, 1886, 894 volumes were prepared and sent to the bindery; 10,000 cards prepared for the card catalogues; 1,000 books and pamphlets indexed.

To this sheet is attached a statement showing the kind and amount of work done in this division for one week.

Amount of work done in library and museum division for the week ending February 26, 1887.

(1) Catalogues indexed and filed	525
Cards for dictionary catalogue	120
Cards for reference	11
Slips addressed	1,205
(2) Books, pamphlets, and periodicals acknowledged, entered, and indexed....	280
(3) Foreign letters translated	4
Foreign acknowledgments compared.....	10
Foreign books catalogued.....	25
Foreign articles indexed	50
(4) Reshelving the books in the foreign room, making shelf-lists, and labeling files, &c.	
(5) Indexing the publications of the bureau.	

Statement showing the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the library and museum division of the Education Office, Department of the Interior.

The character of the work is such that a tabular statement cannot be made (see preceding statement).

Statement showing the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and indisposed of at the dates specified below, in the library and museum division of the Education Office, Department of the Interior.

This division during the months of February and March, in addition to the regular routine work of the library, prepared an author, title, and subject index of the publications of the Bureau. These publications consist of annual reports, special reports, miscellaneous publications, and circulars of information, and aggregate over 28,000 pages.

For statement showing the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employes in the library and museum division of the Education Office, Department of the Interior, see page —.

The following statement shows the average number of employes in the library and museum division of the Education Office, Department of the Interior, during the periods specified:

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884	4	4	4	4	4	4	4	4	4	4	4	4
1885	4	4	4	4	4	4	4	5	5	4	4	4
1886	5	5	5	5	5	5	5	5	5	5	9	9
1887 (to March 1)	9	8										

Statement showing the maximum and minimum amount of business transacted and disposed of by the employe doing the most and the employe doing the least during the periods specified, in the library and museum division of the Education Office, Department of the Interior:

The character of the work done in this division can be seen from the sample of one week's work in the following statement:

Amount of work done in library and museum division for the week ending March 5, 1887.

(1) Catalogues indexed and filed	1,249
Cards for dictionary catalogue.....	275
Cards for reference	15
(2) Books, pamphlets, and periodicals acknowledged and entered.....	443
(3) Foreign letters translated	0
Foreign acknowledgments compared.....	66
Foreign books catalogued.....	76
Foreign articles indexed	23
(4) Reshelving the books in the foreign room, making shelf-lists, and labeling files, &c.	
(5) Indexing the publications of the Bureau.	

The following statement shows the number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the library and museum division of the Education Office, Department of the Interior:

Calendar year.	No. of employés.	Average No. of days present.	Average No. of hours employed daily.
1884	4	277	6½
1885	4	271½	6½
1886	6	275	6½
1887 (to March 1)	8	48	6½

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the library and museum division of the Education Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887. (To Mar. 1.)
Maximum number of days	307	301½	305	48
Minimum number of days				

ALASKA DIVISION.

Report of the Alaska division, Education Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the Alaska division of the Bureau of Education Office, Department of the Interior.

(1) Administering the fund for the education of children in Alaska, without distinction of race.

(2) Making needful provision for the education of the children of school age in Alaska, according to the requirements of the organic act providing for a civil government for Alaska.

(3) The location of the schools.

(4) The lease of school buildings.

(5) Architect's plans for school buildings.

(6) Arrange for the erection of school buildings.

(7) Arrange for the repairs.

(8) Arrange for the materials for.

(9) Arrange for the school furniture.

(10) Arrange for the books, charts, fuel, &c.

(11) Provide blanks for school reports.

(12) Receive and audit the accounts.

(13) Receive and examine and approve vouchers.

(14) Attend to the securing of teachers.

(15) Examine teachers' certificates, applications, and testimonials.

(16) Recommend the appointment of teachers.

(17) Receive the resignation of teachers.

(18) Receive and examine monthly school reports.

(19) Audit the accounts of teachers.

(20) Provide for their prompt payment.

(21) Conduct the correspondence with teachers.

(22) Attend to all the correspondence necessitated by the Alaska schools.

(23) Take care of the Alaska files.

(24) Keep the Commissioner of Education informed of the condition of the Alaska fund.

(25) Answer inquiries and furnish information concerning the work of education in Alaska.

(26) Prepare and publish an annual report.

Statement showing in detail the methods of transacting business in the Alaska division of the Education Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the Education Office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

The monthly report for the school at ——— is received from ———, teacher. The statistics are tabulated in a book kept for the purpose.

The accompanying voucher for the salary is examined quartely, and if found correct is certified to with the signature of the General Agent of Education in Alaska.

The voucher in triplicate is then sent to the Commissioner of Education, who also signs his approval. The original voucher is then sent to the disbursing office of the Department of the Interior for payment; a Treasury check, payable to the order of the teacher, is mailed direct to the teacher by the disbursing office. The duplicate voucher is filed in the Bureau of Education and the triplicate voucher is filed, together with the monthly reports, with the General Agent of Education in Alaska.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the Alaska division of the Education Office, Department of the Interior.

Character of business.	Received during calendar year 1885.	Disposed of during calendar year 1885.	Received during calendar year 1886.	Disposed of during calendar year 1886.	Received during calendar year 1887 to March 1.	Disposed of during calendar year 1887 to March 1.
Letters received	*1,500	.....	*2,000	.....	*686	.....
Letters sent .....	.....	*2,000	.....	*2,100	.....	*380
Circular letters sent .....	.....	*500	.....	*600	.....	*286
Public documents sent .....	.....	*20,000	.....	*23,000	.....	*900
Vouchers audited	132	132	170	170	45	45
School reports examined	180	180	200	200	60	60
School houses rented .....	.....	3	.....	5	.....	4
Salaries paid .....	.....	\$4,125 00	.....	\$11,090 67	.....	\$3,040 00
Supplies purchased .....	.....	\$2,932 24	.....	†\$6,946 39	.....	.....
Teachers' applications examined	40	40	.....	135	.....	25
Teachers appointed .....	.....	10	.....	15	.....	.....
Miles traveled .....	.....	*10,442	.....	*17,500	.....	.....
Charter of schooner to convey teachers to destination and visit important centers .....	.....	.....	.....	\$4,535 00	.....	.....

*Approximate.

†And rent.

Statement showing the average amount and character of business performed, transacted, and disposed of, during the periods specified, by the employes in the Alaska division of the Education Office, Department of the Interior.

The only available method of preparing this statement would be to take the work of the year and divide it by twelve, which would only be approximate amounts.

Statement showing the number of employes in the Alaska division of the Education Office, Department of the Interior.

The General Agent of Education in Alaska has had no clerk.

Occasionally he has been allowed the services of one of the clerks of the Bureau of Education for a few hours.

The division has had no clerk so far.

Statement showing the average number of days and the time and attention devoted to the consideration and transaction of business, during the periods specified, by the employes in the Alaska division of the Education Office, Department of the Interior.

The General Agent of Education in Alaska has taken no vacation and given ten hours a day to his work during the six work days of each week.

A.

ART EDUCATION REPORT.

Special Report on Art Education. Education Office. On the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

B.—Statement showing the principal items of business transacted in the Art Education Report of the Education Office, Department of the Interior, by Col. I. Edwards Clarke.

The duties devolved upon myself as literary expert connected with the Education Office, on January, 1884, and previously, were the preparation of a "Special Report on Education in Fine and Industrial Art, in the United States," which had been before begun, and the publication of which had been eventually ordered by the United States Senate, as a "Senate Document," known as the "Art and Industry Report." The manuscript had been withdrawn from the printer, in order to bring the material down to the very date of printing, under the arrangement that it was to be put in the printer's hands whenever he announced readiness to begin on it. This report is most comprehensive in its nature, and the editor and compiler was in constant correspondence with many institutions, educators, and others. The preparation of this report, the keeping up the correspondence it has required, and the proof-reading of the volume issued—"Part I, Drawing in Public Schools"—a volume of over 1,100 pages, 400 of which are in solid brier, with the preparation of a second volume, "Part II, Technical Drawing," now nearly ready for the printer, and the preparation of much other manuscript for other volumes, with the constant reading of reports and authorities relative to the institutions and to the subject-matter, have been "the principal items of business" comprised in the duties assigned me in the preparation of this work. As this has been a special work, not affecting the regular routine work of the office, it has been finished when the report was issued, and the large volume already in print itself the best record of the amount and kind of work done. It belongs to a kind of intellectual work not usually classed under the technical term "business," and which it is, from its nature, not possible to itemize and classify in accordance with the forms here furnished. I have given to this work all my time, and for months in 1884, '85 and '86, working many additional hours each day, but how many pages of reports, or of books and other publications, were received on a given day, how many letters were received or answered, how many lines or pages of manuscript were written, was never recorded, except when I was receiving and reading the galley proofs from the printer, when an accurate account of those received, read, and returned, was kept. Three and often four sets of proofs were read for changes and to insure accuracy, but when the volume was finally issued these minutes were destroyed as being no longer of the least use. The reception accorded to this volume by the press of the United States, and by the leading journals and authorities in Great Britain and on the Continent of Europe, was most gratifying, and the approval by Congress of the work, as shown in the fact that an extra edition for distribution by Congress, and by the Bureau of Education, was ordered shortly after the Senate edition appeared, furnishes the best evidence of the amount, character and value of the work in this "division."

As my only assistant has been a single copyist a part of the time, the lady doing whatever other work was assigned her by the Commissioner or chief clerk, as her services were needed on the work of other departments when not needed on my work, and, as all the records of attendance, &c., were kept by the chief clerk, it would be impossible for me to give the details of her work, very much of which was in nowise under my direction or control. When there has been no copying to be done for my work, or when other work has been more pressing, she has done such other work.

Several thousand pages of manuscript have been prepared for print, much of it original matter of my own authorship, the rest condensed, compiled, or abstracted from correspondence and official or other publications, comprising also many pages of statistics compiled from replies to questions sent out by this division.

As this matter was entirely special, and in nowise conflicted with or depended on the work of other parts of the office, the Commissioner, Hon. John Eaton, did not think it necessary or wise to subject it to the routine of the ordinary correspondence and business of the office or to require books to be kept.

The work was wholly in one person's hands and always with the approval and knowledge of the Commissioner, who was kept fully informed as to its progress.

SUMMARY.

A volume of 1100 pages—400 in solid brier—has been prepared in manuscript, read four times in proof, and sent out. The manuscript, comprising several thousand pages, for a volume of like size, has been made ready for the printer, as well as much manuscript for other volumes.

Many hundred letters have been received and sent, in the correspondence with institutions and individuals, in this country and in Europe, connected with the preparation of these volumes.

Besides original writing, compilation, and abstracts, a number of statistical tables, from returns to this office, have been prepared.

C.—Statement showing in detail the methods of transacting business in the Art Education Report of the Education Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

As there are no "divisions and employés" in this room, except one copyist, and as there is no routine "business," it is not possible for me to make a report such as is called for in statement C.

The "work" begins and ends in this room, and only eventually appears in the printed volume here prepared, as explained in statement B.

D.—Statement showing the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the Art Education Report of the Education Office, Department of the Interior.

The nature of the work, as already described in statement B, renders it impossible to fill out this statement.

E.—Statement showing the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employés in the Art Education Report of the Education Office, Department of the Interior.

The nature of the work, as already described in statement B, renders it impossible to fill out this statement.

F.—Statement showing the average number of employés in the Art Education Report of the Education Office, Department of the Interior, during the years 1884, 1885, 1886, and first two months of 1887.

Two persons through all the periods named, except during the annual leave. Though, as before stated, not solely on the work of this room, but often assisting in the work of other rooms.

G.—Statement showing the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified, in the Art Education Report of the Education Office, Department of the Interior:

As the work in this room has been specific, and as only one person and one copyist have ever been employed on it, and as all through the time included the copyist has been always employed on other work when not engaged in this, sometimes for many weeks or several months, not being needed by me owing to the nature of the preparatory work on which I was engaged, it is not possible to fill out this blank. The reason no such accounts were kept is, because owing to the nature of such intellectual work they would be almost impossible to keep, and wholly useless when kept, because not needed to test the amount of work done, or faithfulness in doing the work, and so were never directed to be kept. Of course with only one person engaged on the work, no such comparisons as are called for by this blank "G" can be instituted.

H.—Statement showing the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the Art Education Report of the Education Office, Department of the Interior.

The account of attendance and absence from the office having been kept by the chief clerk of the bureau, and being in nowise under my supervision, I have no means of making these statements. I can only say that in regard to myself and copyist, we were never absent from duty during the 3½ years in question, unless on duty elsewhere, or on annual leave, or, if absent from sickness, duly excused. I can only say for myself, that by working after hours I have always *made up* any absences due to sickness or otherwise.

I.—Statement showing the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the Art Education Report of the Education Office, Department of the Interior, during the periods specified.

This is answered under statement H, as myself and my copyist were on duty all the time.

COMMISSIONER OF RAILROADS.

Report of the office of the Commissioner of Railroads on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
OFFICE OF COMMISSIONER OF RAILROADS,
Washington, April 8, 1887.

SIR: In reply to circular order of the Department dated March 23, 1887, directing answers to be made to certain inquiries from the chairman of the Senate Select Committee appointed "to inquire into and examine the methods of business and work in the Executive Departments," I have the honor to submit the accompanying report, which has been made as complete as the records of this office will admit.

Most respectfully yours,

J. E. JOHNSTON,
Commissioner.

Hon. L. Q. C. LAMAR,
Secretary of the Interior.

Statement showing the principal items of business transacted in the office of the Commissioner of Railroads, Department of the Interior.

The principal items of business of the office are to ascertain the 25 per cent. of net earnings due the United States under section 4 of the act of May 7, 1878, from the Union Pacific and Central Pacific Railroad Companies, and the 5 per cent. of net earnings due from the Central Branch Union Pacific, Kansas Pacific, and Sioux City and Pacific Railroad Companies under the act of July 1, 1862, as amended by the act of July 2, 1864.

In order to do this it is necessary for the book-keepers to visit, at least once in each year, the principal offices of these companies, which are located at Boston, Chicago, Saint Louis, Omaha, and San Francisco. These examinations embrace a thorough investigation of the earnings and expenses, assets and liabilities, expenditures for new construction and new equipment, and the general financial condition of the respective companies at the end of each calendar year. From two to three months are occupied in these examinations, after which the data thus obtained are tabulated and prepared for use in the annual report of the office.

It is also the duty of the office to furnish information to the various Executive Departments touching matters relating to the subsidized railroads, such as tariffs of rates, names of branch lines operated, tables of distances, and various other matters.

The duties of the engineer involve a personal inspection of the physical characteristics of the various subsidized railroads coming under the operations of this Bureau, in order to ascertain if they are kept in a fair condition as to road-bed, track, bridges, and buildings, shops, equipment, &c. From two to three months are usually occupied in this manner, and involve many thousands of miles of travel. Upon his return to this office the result of such examination and inspection is embodied in his report, the details of which will be found printed as an appendix to the annual report of this office. The remainder of his time is occupied in compiling and drawing maps, &c., and various other matters of a technical character.

Statement showing in detail the methods of transacting business in the office of the Commissioner of Railroads, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the railroad office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

Upon the receipt of a communication requesting information relative to any of the railroads coming under the operations of this office, it is officially stamped with the date of receipt, and then numbered and entered in the register of letters received,

after which it is referred to one of the book-keepers, who gives the matter immediate attention and prepares the data and statistics called for. After the statements are prepared they are officially transmitted to the party requesting the information and the date of answer noted on the original communication, which is placed on the files of the office. With respect to resolutions of inquiry from either house of Congress, the same course is pursued, but all matters of this character are transmitted in duplicate through the honorable Secretary of the Interior. A subject index is also kept of all communications sent out from this office.

A very large number of semi-annual and annual reports are required and received from the railroad companies on the forms prescribed by the Secretary of the Interior, all of which are carefully examined, and those of the bonded roads verified from the books and accounts of the respective companies at their general offices located at Boston, Omaha, Chicago, Saint Louis, and San Francisco. As the forms cover 42 pages, and embrace details of nearly every variety of statistics pertaining to railroads, a copy is herewith transmitted, in order to convey an idea as to the amount of labor involved in their examination and verification.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the Office of the Commissioner of Railroads, Department of the Interior:

Character of business.	During calendar year 1884.	Pending and undisposed of at close of the calendar year 1884.
Letters received	747	.....
Letters written	846	.....
Semi-annual reports, form 8-002	12	.....
Annual reports, form 8-008	16	.....
General ledger balances	39	.....
Reports of earnings and expenses	240	.....
Reports of through tonnage	24	.....
Reports of through passengers	24	.....
Annual reports of this Bureau	3, 000	524

In addition to the above, the books and accounts of the following-named railroad companies were examined by the book-keeper and assistant book-keeper, the place of examination and number of days thus occupied being also stated: the Union Pacific Railroad and the Kansas Pacific Railway (now Kansas Division of the Union Pacific Railway Company) at the general office of the company at Boston, Mass., and the auditor's office at Omaha, Nebr., occupying thirty-nine days; the Central Branch Union Pacific Railroad at the general office of the company at Saint Louis, Mo., occupying three days; the Sioux City and Pacific Railroad at the auditor's office at Cedar Rapids, Iowa, occupying three days; the Central Pacific Railroad at the general office of the company at San Francisco, Cal., occupying forty days.

After the roads and other properties, and the accounts of the various companies were examined, the entire force was occupied about three months in preparing and arranging the data thus obtained, for use in the annual report of the Commissioner, dated November 1, 1884. In compiling these data, and in the preparation of the various tables of statistics, many days were necessarily spent upon statements, the mere copying of which would occupy but a few hours. This report embraces statements showing the condition of the transportation accounts with the Government, amounts reimbursed on account of interest, condition of the sinking funds, statements of the 5 and 25 per cent. of net earnings, assets and liabilities, earnings and expenses, and condition of the property of the Union Pacific, Central Pacific, Kansas Pacific, Central Branch Union Pacific, and Sioux City and Pacific Railroad Companies. This report also embraces statistics showing the earnings and expenses, assets and liabilities, and condition of the property of the following-named land-grant railroad companies: Southern Pacific; Northern Pacific; Oregon and California; Atlantic and Pacific; Saint Louis and San Francisco; Atchison, Topeka and Santa Fé; Missouri Pacific; Missouri, Kansas and Texas; Saint Louis, Iron Mountain and Southern; Texas and Pacific; Chicago, Rock Island and Pacific; Chicago, Burlington and Quincy; Hannibal and Saint Joseph; Iowa Falls and Sioux City; Dubuque and Sioux City; Cedar Rapids and Missouri River, and the Memphis and Little Rock Railroad Companies.

The appendices to the report include a compilation of the laws affecting the various railroads which have received aid from the United States; decisions of the Supreme

Court affecting the same; Department circulars and orders; and numerous tables of statistics.

The engineer made personal inspection of the following-named railways, the distance traveled and number of days occupied being also stated:

Leaving Washington, D. C., July 14, for Chicago, via Pennsylvania Railway, distance 844 miles; time required upon train and in Chicago two days; thence upon Chicago, Burlington and Quincy Railway, 206 miles to Burlington, Iowa, and upon the Burlington and Missouri River Railway lines in Iowa, Nebraska and Colorado, 819 miles, to Denver, devoting four days to the inspection of these lines. One day was devoted to examination of the Union Pacific Branch line from Denver, Col., to Silver Plume and return, distance 112 miles. Then inspected the Kansas Division of Union Pacific, from Denver to Kansas City, the distance traveled being 639 miles, requiring two days' time. Thence to Atchison over the Missouri Pacific Railway, 47 miles, and examining the Central Branch Union Pacific Railway to Waterville, Kansas, 100 miles, going to Greenleaf, 13 miles, then returning to Kansas City, making 113 miles more, occupying one day. The Hannibal and Saint Joseph Railway between Atchison, Saint Joseph, and Hannibal, 227 miles, was examined next, requiring one day. From Hannibal to Saint Louis, over the Saint Louis, Keokuk and Northwestern Railway, 111 miles, occupied about one-half day. In Saint Louis over three days were spent at the office of Missouri Pacific and the Saint Louis and San Francisco Railways, obtaining information needed for the annual report. Leaving Saint Louis July 29, inspection was made of portions of the Saint Louis and San Francisco and of the Atlantic and Pacific Railways, extending from Saint Louis to Red Fork, Ind. Ter., 428 miles, returning to Peirce Junction and Newton, 386, miles, required two days' time. Returned from Newton to Kansas City over the Atchison, Topeka and Santa Fé Railway in the night, a distance of 201 miles. Went to Omaha upon Missouri Pacific Railway, 213 miles, requiring nearly one day. Remained at Omaha one day, then examined the Sioux City and Pacific Railway between Missouri Valley, Blair, and Sioux City, taking one day, and returning to Omaha in the evening; distance traveled was 214 miles. In Omaha one day examining the shops and equipment of the Union Pacific Railway, then inspected the main line between Omaha and Ogden, in a little more than two days; distance traveled, 1,032 miles. Examined the buildings, sidings, &c., at Ogden, then went to Salt Lake via Utah Central Railway, returning to Ogden, distance 122 miles; time employed, nearly two days. Union Pacific Railway from Ogden to Cheyenne, thence to Denver, was passed over next, the distance being 623 miles, 106 miles of which, between Cheyenne and Denver, was inspected; time employed, one day. Remained at Denver one day examining the buildings and equipment belonging to the Union Pacific Railway; the next day inspected the branch line to Central City and Graymount, traveling 120 miles. Examined the Denver, South Park and Pacific Division of Union Pacific Railway, going as far as Buena Vista, 137 miles, returning to Denver upon the Denver and Rio Grande Railway, 242 miles, taking about two days' time.

August 14, left Denver to complete the examination of the Kansas Division. The trip extended to Kansas City, 639 miles, and occupied two days' time. Returned to Omaha via Missouri Pacific Railway, traveling 213 miles, requiring nearly one day. At Omaha one day, then left for Ogden upon Union Pacific Railway; time, two days; distance, 1,032 miles. From Ogden to San Francisco, traveling upon the Central Pacific Railway; time employed was two days, the distance being 895 miles. Remained in San Francisco six days, obtaining notes relating to Central and Southern Pacific Railways. Then inspected the Southern Pacific Railway, Northern Division, as far as Tres Pinos and Santa Cruz, requiring 291 miles travel and two days' time. Two days' time and 567 miles travel were required for the inspection of the Ogden Division, Central Pacific Railway, and the line from San Francisco to Sacramento via Niles and Tracy. The main line between Sacramento and Ogden, 744 miles, was then inspected; time employed, four days. The Utah and Northern Division of the Union Pacific from Ogden to Garrison, including branch from Silver Bow to Butte, a distance of 468 miles, was next inspected; time employed, two days.

From Garrison the Northern Pacific Railway was examined as far as Cinnabar, 225 miles, returning from thence upon same railway to Livingston and Saint Paul, distance being 1,083 miles; the time employed, including all stoppages, was nearly ten days. Between Saint Paul and Omaha, upon Chicago, Saint Paul, Minneapolis and Omaha Railway, the distance traveled was 370 miles; time used, one day. Remained in Omaha part of a day, then proceeded via the Chicago, Burlington and Quincy Railway to Chicago, the distance being 508 miles; time consumed upon the trip and in Chicago, a little over two days.

Returned to Washington via Lake Shore and Pennsylvania Railways, distance, Chicago to Washington, being 883 miles, arriving in Washington September 24, having been engaged upon the trip seventy-two days, and traveled 14,868 miles.

The following statement shows the amount and character of business received, transacted, and disposed of during the period and on hand, pending and undisposed of at the dates specified below, in the office of the Commissioner of Railroads, Department of the Interior:

Character of business.	During calendar year 1885.	Pending and undisposed of at close of the calendar year 1885.
Letters received	717	.....
Letters written	763	.....
Semi-annual reports (form 8-002)	10	.....
Annual reports (form 8-008)	15	.....
General ledger balances	38	.....
Reports of earnings and expenses	240	.....
Reports of through tonnage	24	.....
Reports of through passengers	24	.....
Annual reports of this Bureau	2,500	740

In addition to the above, the books and accounts of the following-named railroad companies were examined: Those of the Union Pacific Railway (including the Kansas Pacific) at the company's general office at Boston, Mass., by the book-keeper and assistant book-keeper, occupying fourteen days. The book-keeper and clerk were also occupied sixteen days at the auditor's office in Omaha examining the books of this company. They also examined the books of the Central Branch Union Pacific Railroad at Saint Louis, Mo., occupying four days; the Sioux City and Pacific Railroad at Chicago, occupying three days, and the Central Pacific Railroad at San Francisco, occupying thirty-four days. The assistant book-keeper was also detailed for a period of thirty-three days to take charge of and arrange the exhibit of this office at the World's Industrial and Cotton Centennial Exposition held at New Orleans, La.

After the roads and other properties and the accounts of the various companies were examined, the book-keeper and assistant book-keeper and clerk were occupied about three months in preparing the accounts of the bonded companies to be included in the annual report of the Commissioner, dated October 27, 1885. In compiling these data and in the preparation of the various tables of statistics many days were necessarily spent upon statements, the mere copying of which would occupy but a few hours.

This report contained statements showing amounts reimbursed the Government on account of interest; condition of the sinking funds; statement of the 5 and 25 per cent. of net earnings; assets and liabilities; earnings and expenses; condition of the property, &c., of the Union Pacific, including the Kansas Pacific, the Central Pacific, the Central Branch Union Pacific, and the Sioux City and Pacific Railroad Companies. It also embraced statistics showing the assets and liabilities, earnings and expenses, condition of the property, &c., of the following-named railroad companies: Southern Pacific; Northern Pacific; Oregon and California; Atlantic and Pacific; Saint Louis and San Francisco; Atchison, Topeka and Santa Fé; Missouri Pacific; Missouri, Kansas and Texas; Saint Louis, Iron Mountain and Southern; Texas and Pacific; Chicago, Rock Island and Pacific; Chicago, Burlington and Quincy; Hannibal and Saint Joseph; Iowa Falls and Sioux City; Cedar Rapids and Missouri River; Memphis and Little Rock; Dubuque and Sioux City, and the Saint Paul and Duluth Railroad Companies.

The inspection trip by the engineer of the subsidized railways was commenced July 6, completed August 17, requiring forty-two days' time and 8,638 miles travel, as shown by the following details:

From Washington to Chicago, passing over the Pennsylvania and the Lake Shore roads, distance being 883 miles, requiring nearly two days' time; stopped in Chicago but a few hours; went thence to Saint Louis, via Chicago and Alton Railway, distance 283 miles, and time required about one day. Remained in Saint Louis three days getting information for use in annual report; then went to Kansas City, over the Missouri Pacific Railway, distance 283 miles, requiring for the trip about two days' time. Thence to Atchison, upon the Missouri Pacific Railway, and to Greenleaf, upon the Central Branch Union Pacific Railway, returning to Kansas City the same day, traveling 200 miles upon the latter and 120 upon the former railway. In Kansas City one day, making arrangements for the trip to Albuquerque. From Kansas City to Albuquerque, over the Atchison, Topeka and Santa Fé Railway, the distance, including Hot Springs Branch, is 930 miles, but owing to washout and other delays five days' time was consumed in the inspection. The Atlantic and Pacific Railway

(Western Division) was inspected between Albuquerque and Mojave; time required, three days, the distance, 815 miles. Partial inspection was made of the Southern Pacific Railway between Mojave and San Francisco, the distance traveled being 382 miles, and one day's time devoted to it. Three days were employed in San Francisco obtaining notes from the railway offices for use in annual report.

The Oregon division of the Central Pacific Railway was next inspected, passing from San Francisco to Roseville over the subsidized line, then from Roseville to Delta, 359 miles' travel being required and two days' time. To reach Ashland, Oreg., the present terminus of the Oregon and California Railway, required a stage ride of nearly two days' time and about 125 miles of distance. The examination of the Oregon and California Railway was made in one day, the distance between Ashland and Portland being 341 miles. Remained in Portland one day and then passed over the Oregon Railway and Navigation Company's lines, via Umatilla, to Huntington, Oreg, a distance of 404 miles, in about one day's time.

August 2 left Huntington to inspect the Oregon Short Line Branch of Union Pacific Railway; distance traveled, including the branch between Shoshone and Ketchum, was 678 miles, time required to reach Granger being two days. The inspection between Granger and Cheyenne, thence to Denver, including part of a day in Denver, occupied two days, the distance being 468 miles. From Denver to Kansas City two days were spent upon the inspection and examination of this part of the Union Pacific Railway, the length of the division being 639 miles. From Kansas City rode over the Missouri Pacific Railway to Omaha, 213 miles, requiring for this and time employed at Omaha nearly three days. Passed over the Chicago and Northwestern Railway from Omaha to Chicago, distance 492 miles, requiring one day's time. Over two days were used at Chicago offices of Chicago, Burlington and Quincy Railway and branch lines in vicinity of Chicago, involving 140 miles' travel. Returned to Washington via Lake Shore and Pennsylvania Railways, distance traveled being 883 miles, and time used being about two days.

The Commissioner personally inspected the road-bed, track, shops, bridges, buildings, and appurtenances of the following-named railroads: Those of the Sioux City and Pacific Railroad from Sioux City to Fremont, Nebr.; the main line of the Union Pacific Railway from Omaha, Nebr., to Ogden, Utah; the main line of the Central Pacific Railroad from Ogden, Utah, to San Francisco, Cal., via Port Costa; also that portion of the road between Oakland and Sacramento, formerly the Western Pacific, and the Oregon Division of said road from Roseville Junction to Delta, the Southern Pacific Railroad, Northern Division, from San Francisco to Soledad, and the Oregon and California Railroad from Ashland, Oreg., to Portland, Oreg.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below in the office of the Commissioner of Railroads, Department of the Interior:

Character of business.	During calendar year 1886.	Pending and undisposed of at close of the calendar year 1886.
Letters received.....	667	.....
Letters written.....	604	.....
Semi-annual reports (form 8-002).....	33	.....
Annual reports (form 8-008).....	22	.....
General ledger balances.....	29	.....
Reports of earnings and expenses.....	225	.....
Reports of through tonnage.....	24	.....
Reports of through passengers.....	24	.....
Annual reports of this Bureau.....	2,000	500

In addition to the above the books and accounts of the following-named companies were examined: The Union Pacific Railway (including the Kansas Pacific) at the company's general office at Boston, Mass., by the book-keeper and clerk, occupying sixteen days. The clerk, with the assistance of a gentleman temporarily detailed to serve this office, was also engaged for a period of eighty-five days in the examination of the books and accounts of this company at the Boston and Omaha offices, with particular reference to ascertaining in detail the amounts allowed by the Union Pacific Railway to its branch lines on account of constructive mileage, this examination resulting in nearly three hundred large sheets of tabulated statistics, and enabling the office to estimate the difference which such allowances would make in the

amount of net earnings each year. The books and accounts of the Central Pacific Railroad were examined by the assistant book-keeper at the company's general office at San Francisco, Cal. The main line of the road from San Francisco to Ogden, Utah, and that portion of the Union Pacific Railway between Ogden and Cheyenne was also inspected by him, the total time occupied in these various duties being fifty days. The accounts of the Sioux City and Pacific Railroad were examined in Chicago, occupying three days, and of the Central Branch Union Pacific Railroad at Saint Louis, Mo., occupying two days.

After the roads and other properties and the accounts of the various companies were examined, the book-keeper, assistant book keeper, and clerk were occupied nearly three (3) months in preparing and arranging the data thus obtained for use in the annual report of the Commissioner, dated October 28, 1886. In compiling these data and in the preparation of the various tables of statistics many days were employed.

This report embraces statements showing the amount reimbursed the Government on account of interest; condition of the sinking funds; statements of the 5 and 25 per cent. of net earnings; amounts produced under existing laws, and the interest paid by the United States on account of the subsidy bonds; assets and liabilities, earnings and expenses, and condition of the property of the Union Pacific (including Kansas Pacific), the Central Pacific, the Sioux City and Pacific, and the Central Branch Union Pacific Railroad Companies. The annual report also embraces statistics showing the earnings and expenses, assets and liabilities, and condition of the property of the following-named companies: Northern Pacific Railroad, Oregon and California Railroad, Saint Paul and Duluth Railroad, Chicago and Northwestern Railway, Chicago, Rock Island and Pacific Railway, Chicago, Burlington and Quincy Railroad, Dubuque and Sioux City Railroad, Iowa Falls and Sioux City Railroad, Saint Joseph and Grand Island Railroad, Hannibal and Saint Joseph Railroad, Missouri Pacific Railway, Missouri, Kansas and Texas Railway, Saint Louis, Iron Mountain and Southern Railway, Saint Louis and San Francisco Railway, Memphis and Little Rock Railroad, Atchison, Topeka and Santa Fé Railroad, Atlantic and Pacific Railroad, and the Southern Pacific Railroad.

The inspection by the engineer was commenced August 5 and completed October 8, the distance traveled being 12,573 miles, as shown in the following description:

Leaving Washington, via Pennsylvania Railway, August 5, traveled 844 miles to Chicago, using for the trip and in Chicago two days' time. Thence to Omaha. Inspection was made of the Chicago, Burlington and Quincy and Burlington and Missouri River Railway lines, time used being about one day, the distance traveled being upon the former line 206 and upon the latter 302 miles. Remained in Omaha one day to obtain notes from Union Pacific office, then inspected that portion of the Burlington and Missouri River Railway between Omaha, Hastings and Kearney, which was done in one day's time, the distance traveled being 242 miles. Next inspected the Saint Joseph and Grand Island Railway between Hastings and Saint Joseph, a distance of 227 miles, which, with the examination of the station buildings, consumed about two days. Went from Saint Joseph to Kansas City upon the Missouri Pacific Railway, traveling 68 miles, requiring, with stoppage at Kansas City, one day. The inspection of that part of the Atchison, Topeka and Santa Fé between Kansas City, Topeka, and Lawrence required nearly one day, involving 92 miles' travel. The Southern Kansas Railway was next inspected from Lawrence to Coffeeville and returning to Kansas City, which, including the extension southward from Coffeeville nearly to Indian Territory line, made 317 miles traveled, using two days' time. The trip from Kansas City to Saint Louis, 283 miles over the Missouri Pacific Railway and stop in Saint Louis to obtain information from Saint Louis and San Francisco Railway office, required two days' time. The inspection of the Saint Louis and San Francisco Railway required two days, the trip covering 516 miles, from Saint Louis to Sapulpa and return to Vinita. The portion of the Missouri, Kansas and Texas Railway between Vinita and Junction City, which was inspected, covers a distance of 209 miles, using one day's time.

Between Junction City and Topeka the trip was made over the Kansas division of the Union Pacific Railway; the distance is 72 miles; time used, including the necessary stop at Topeka, was one day. The next inspection was made upon the main line of the Atchison, Topeka and Santa Fé, extending from Topeka to El Paso and to Deming, a total distance of 1,452 miles, which occupied five days. The inspection of the Southern Pacific Railway and branches between Deming and San Francisco required 1,260 miles' travel, which, with delays caused by washouts, consumed seven days' time. The time spent in San Francisco procuring items for use in annual report was about three days. The examination of the Northern division of the Southern Pacific Railway covered the direct line from San Francisco to Tres Pinos, returning to Gilroy and thence to San Miguel upon the new extension, a total distance of 414 miles, requiring two days' time for that and the return to San Francisco. The usual inspection of the Central Pacific Railway required a trip from San Francisco to Dunsuir and return to Sacramento, making 561 miles' travel, requiring two days' time;

also a trip from Sacramento to Ogden, 744 miles, occupying three days' additional time.

From Ogden the trip over the Oregon Short Line division of the Union Pacific Railway to Huntington, 481 miles, was made in one day, no special examination of that line being required. The Oregon Railway and Navigation Company's line was used from Huntington to Wallula Junction in order to reach the Northern Pacific Railway; number of miles traveled upon this was 217, requiring one day's time. From Wallula Junction to Pasco and Ellensburg and return the examination required two days' time. Upon this portion of the Northern Pacific Railway distance traveled 288 miles, of which 254 were upon the Cascade Branch, between Pasco and Ellensburg, and 34 miles upon the main line. One day's time was spent at Pasco and traveling over the Oregon Railway and Navigation Company's road to Portland; distance from Wallula Junction being 214 miles. Seven days were spent in Portland in obtaining notes and information relative to the Oregon and California and the Cascade division of the Northern Pacific Railway. The Pacific and the western part of the Cascade division of the Northern Pacific Railway between Portland, Tacoma, and Carbonado were inspected next, the time being two days; distance traveled 358 miles.

Returning by the Oregon Railway and Navigation Company's road from Portland to Wallula Junction, 214 miles, which required one day's time, the inspection of the main line of the Northern Pacific Railway was resumed. This required six days' time and 1,699 miles' travel; nearly a day's time was spent in Saint Paul; thence to Chicago over the Chicago, Milwaukee and Saint Paul Railway, 410 miles, required another day, and passing over the Lake Shore and the Pennsylvania Railway lines to Washington, 883 miles, a little more than one day was used.

The Commissioner personally inspected the road-bed, track, shops, bridges, buildings, and appurtenances of the following-named railroads: Those of the Sioux City and Pacific Railroad from Sioux City to Missouri Valley Junction, Iowa; the main line of the Union Pacific Railway from Omaha, Nebr., to Cheyenne, Wyo., the Cheyenne division of said road from Cheyenne to Denver, Colo., and the Kansas division from Denver, Colo., to Kansas City, Mo.; also the Central Branch Union Pacific Railroad from Atchison to Waterville, Kans.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending and undisposed of, at the dates specified below, in the office of the Commissioner of Railroads, Department of the Interior:

Character of business.	Pending on Jan. 1, 1887.	During calendar year, 1887.	Pending and undisposed of on Mar. 1, 1887.
Letters received.....	112	.....
Letters written.....
Semi-annual reports, Form 8-002.....	2	.....
Annual reports, Form 8-008.....	3	.....
Reports of earnings and expenses.....	19	.....
Annual reports of this Bureau.....	500	.....	450

The amounts to be carried to the credit of the sinking funds of the Union Pacific and Central Pacific Railroad Companies on the first day of February, as required by section 4 of the act of May 7, 1878, have not been ascertained for the year 1886, owing to the fact that the books of these companies are not closed until about the first day of April in each year, and it is impossible to make these examinations and ascertain the precise amount of net earnings subject to the 25 per cent. until all of the entries have been made and the books balanced and closed. For similar reasons the semi-annual and annual reports, on Forms 8-002 and 8-008, for the year 1886, have not yet been submitted by the various railroad companies reporting to this office.

Statement showing the average amount and character of business performed, transacted, and disposed of, during the periods specified, by the employes in the office of the Commissioner of Railroads, Department of the Interior.

Owing to the technical character of the work of this Bureau it was impracticable to keep a record of the business performed, transacted, and disposed of by the employes during the periods covered by the inquiry.

The following statement shows the average number of employés in the office of the Commissioner of Railroads, Department of the Interior, during the periods specified :

Calendar year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1884.....	6	6	6	6	6	6	6	6	6	6	6	6
1885.....	6	6	6	6	6	6	6	6	6	6	6	6
1886.....	6	6	*5	*5	†6	6	6	6	6	6	6	6
1887 (to March 1)	*5	*5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* One vacancy.

† One vacancy during first half of May, 1886.

Statement showing the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least, during the periods specified, in the office of the Commissioner of Railroads, Department of the Interior.

Owing to the varied and technical character of the work of this Bureau, it was impracticable to keep a record of the business transacted and disposed of by the employés.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business, during the periods specified, by the employés in the office of the Commissioner of Railroads, Department of the Interior :

Calendar year.	Number of employés.	Average number of days present.	Average number of hours employed daily.
1884.....	6	290	7
1885.....	6	280	7
1886.....	6	275	7
1887 (to March 1)	*5	38	7

*One vacancy.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the office of the Commissioner of Railroads, Department of the Interior, during the periods specified :

	1884.	1885.	1886.	1887. (To Mar. 1).
Maximum number of days.....	307	299	303	48
Minimum number of days	278	276	277	24

[*Note by Committee:* In addition to the foregoing matter there were 41 more sheets containing numerous items under each title or subject of the index which are not considered sufficiently valuable to have printed herein.]

OFFICE OF INDIAN AFFAIRS.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
Washington, June 18, 1887.

The honorable the SECRETARY OF THE INTERIOR :

SIR: Referring to Department circular of March 28, and letter of April 2, 1887, I have the honor to submit herewith a report of the business transacted in the finance, accounts, land, education, and files divisions of this office, as required by the Senate Select Committee; also a statement as to work performed by clerk in charge of Indian tradership matters.

Very respectfully,

J. D. C. ATKINS,
Commissioner.

ACCOUNTS DIVISION.

Report of the accounts division, Indian Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the accounts division of the Indian Office.

The work of the accounts division is miscellaneous in character, and, strictly speaking, the name is a misnomer. The principal item of work, however, and that from which the name of the division is derived, is the examination of the accounts of Indian agents, inspectors, special agents, superintendents of Indian schools, and other disbursing agents of the Indian service. The responsibility growing out of this work is not inconsiderable. Almost the entire annual appropriation of over \$5,000,000 is placed in the hands of the various agents, inspectors, and other officers, either in cash remitted to them for disbursement, or in property purchased under contract, or otherwise, and committed to them for issue or expenditure, and it is the duty of this division to see that this large amount is paid out, issued, expended, and properly disposed of in accordance with law and regulations.

The service at the several Indian agencies requires, for its proper dispatch, that various employés, such as physicians, clerks, farmers, blacksmiths, carpenters, engineers, herders, millers, sawyers, &c., shall be employed to properly conduct the necessary business and instruct the Indians in the ways of civilized life. Then, again, policemen are required to preserve order, prevent the introduction of liquor on the various reservations, remove intruders, and assist the agent in very many ways to keep in proper control the Indians under his charge. Interpreters are needed as a medium of communication between agent and employés and the Indians, and to certify, as provided by law, to issues and payments to Indians. Additional farmers are required to go among the Indians as they may be scattered on the several reservations and personally instruct them in the use of agricultural implements, how to break up their land, how to plant their seed, &c.

It is the duty of this division to apportion the employés to the several agencies. In the case of agency employés, to take into consideration the appropriations available, the limit provided by law as to the amount allowed for white employés; the provision of law as to the preference to be given to Indians when competent, and in the case of Indian police, interpreters, and additional farmers, the amount of the special appropriations, and the demands and necessities of the several agencies must be carefully considered, so that the employés to be allowed shall, as far as possible, be assigned to the most necessitous agencies.

It is the duty of this division to forward with proper instructions the blanks necessary for the preparation of all bonds of agents, inspectors, special agents, and other disbursing agents, and upon their return of such bonds to examine them and enter them, when approved, in record books prepared for the purpose.

Without entering further into detail, it will be sufficient to say that the various most important kinds of work performed by this division are briefly as follows :

- (1) Examination of accounts.
- (2) Charging up disbursements by book-keeper.
- (3) Acting on explanations to exceptions to accounts.
- (4) Carrying back to appropriations unexpended balances.
- (5) Open-market exigency purchases.
- (6) Supervision of collection and expenditure of miscellaneous receipts.
- (7) Sales of condemned Government property.
- (8) Authorizing boards of survey on unserviceable public property and acting on findings of same.
- (9) Supervising cutting of dead and down timber by Indians and sale of same.
- (10) Recording weekly and monthly statements of public funds in hands of agents.

- (11) Recording statements of indebtedness.
- (12) Charging on property book all property consigned to agents.
- (13) Supervision of annuity payments.
- (14) Deciding on applications of claimants for back annuities.
- (15) Record of all agency employés and changes therein.
- (16) Governing appointments and removals of agency employés.
- (17) Appointment of agents.
- (18) Bonding of agents.
- (19) Recording agent's bonds.
- (20) Instructions to new agents.
- (21) Instructions to outgoing agents.
- (22) Instructions to physicians, clerks, and farmers newly appointed to agencies.
- (23) Leaves of absence for agents and agency employés.
- (24) Consideration of charges against agents.
- (25) Consideration of charges against agency employés.
- (26) Considering and settling disputes between agents and employés.
- (27) Considering and settling disputes between tribes or bands of Indians or between individual Indians where funds are involved.
- (28) Considering, recording, and acting on inspector's reports.
- (29) Considering, recording, and acting on special agent's reports.
- (30) Grants specific authority to agents in the issue of wagons, harness, and the larger and more costly agricultural implements and cattle.
- (31) Obtaining authority to modify manner of issuing subsistence to Indians.
- (32) Obtaining authority for agents to submit their accounts without affidavits.
- (33) Instructing as to care and management of cattle herds at agencies.
- (34) Recording monthly reports of sanitary statistics from agencies.
- (35) Sending weekly report of balances in hands of disbursing agents to Treasury.
- (36) Advising Treasury of receipt of agent's accounts and disbursements and balances of cash on hand shown thereby.
- (37) Annual census of Indians.
- (38) Special census of certain tribes and bands.
- (39) Transfer of property from one agency to another.
- (40) Sale of property not needed at agencies and application of proceeds to benefit of Indians.
- (41) Consolidation of agencies.
- (42) Changes in agency headquarters.
- (43) Register of letters received.
- (44) Register of accounts received.
- (45) Copying in permanent record of letters sent and reports to Department.
- (46) Preparation of following-named statistical tables for Commissioner's annual reports: Table showing population, civilization, allotments, houses, &c., on all Indian reservations.
- (47) Table showing lands cultivated and crops raised and stock owned by Indians.
- (48) Medical statistics of Indians, showing sick, wounded, &c., during the year.
- (49) Statement of disbursements of appropriations during year.
- (50) Statement of salaries and incidental expenses at agencies during year.
- (51) Reports in reply to Congressional inquiries touching business before it.
- (52) Copying mail for signature.
- (53) Copying miscellaneous papers.
- (54) Completion and preparation for printer of book of regulations of Indian Department.
- (55) Completion and preparation for the printer of lists of agencies and Indian schools, agents and school superintendents, their post-office and telegraphic addresses; also of chiefs of divisions, inspectors, special agents, and members of the Board of Indian Commissioners, and periodical revision of the same.
- (56) Verbal instruction of new agents, special agents, agency clerks, and physicians.

Statement showing in detail the methods of transacting business in the accounts division of the Indian Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the Indian Office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate division of said office, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

EXAMINATION OF ACCOUNTS.

All agents, special agents, inspectors, school superintendents and disbursing officers of every kind are required to render an account, each quarter, of all the cash and property remaining on hand, received, disbursed, issued or otherwise disposed of

during such quarter. Such accounts must be rendered in duplicate and forwarded to the Indian office within thirty days after the expiration of the quarter for which the account is rendered. When such duplicate account is received in the Indian Office it is marked by the Assistant Commissioner with the letter A, indicating that it is to be considered by the accounts division. It then is sent to the files division, where the letter of transmittal is stamped with an office number and the date of its receipt and a brief made of its contents. The package is then opened and each paper contained therein is stamped with the same number as the letter of transmittal, so that it can at any time and in any place be identified. From the files division the account is passed to the desk of the chief of the accounts division, who marks upon the letter of transmittal the name of the clerk in charge of the division files, and it is then sent to the division register, where the number and date of the letter, the name of the writer, the name of the clerk to whom referred and the date of such reference, are entered in a book kept for that purpose called the subregister, and a letter is written to the agent acknowledging the receipt of the account, describing it, and one to the Second Auditor of the Treasury, notifying him of the receipt of the account by Indian Office. An entry is also made in the index of accounts, showing the agency, the name of the agent, the quarter for which the account was rendered, whether it is only cash or property, or both, the date of its receipt in the office and the date of the acknowledgment to the agent and notice to the Second Auditor. The following action is then noted on the book of the letter of transmittal: "Acknowledged ———, 1887," after which the account is passed to the division files, and when received by the clerk in charge thereof, a statement of the account-current belonging in such account is sent to the Second Comptroller of the Treasury, after which the package is carefully examined to ascertain if any abstracts or vouchers are missing; if so, the agent is immediately notified by letter of such fact, enumerating the missing papers, and instructing him to forward the same at once. The cash accounts then are sent to the book-keeper of the accounts division, who credits the agent with all disbursements and deposits to the credit of the United States, made during the quarter, and returns the account to the division files. A list of the unexamined accounts is furnished by the file clerk to the chief of the accounts division, who assigns the accounts to the various clerks in the division, for examination.

When a clerk is ordered to examine an account, he is furnished with both original and duplicate copies of the account, also the duplicate account for the preceding quarter, for reference and comparison. The quarterly account being in fact composed of two accounts, cash and property, the cash is examined first. The cash account comprises the account-current, the abstract of disbursements, the various vouchers representing the expenditures of money made during the quarter, and the report of employés. The following synopsis will show the method of examination and the order in which the various portions of the account are considered.

ACCOUNT-CURRENT.

- (1) See that the balance remaining on hand at close of preceding quarter, as shown by the duplicate account-current for such quarter, is properly brought forward.
- (2) See that all remittances to the agent during the quarter (if made in time to reach the agent before the end of the quarter) are taken up. This information is obtained from the tabular statement of remittances in the finance division.
- (3) See that all moneys received from miscellaneous sources, as shown by transcript of agent's cash-book, accompanying the accounts, are properly taken up.
- (4) See that all moneys arising from sale of subsistence to employés, as shown by abstract "E," property account, are properly taken up.
- (5) See that the account-current bears the affidavit of the agent that said account-current embraces all the funds denominated "miscellaneous receipts," coming into his hands during the period for which it is rendered. If the agent certifies to the account-current instead of swearing to it, see that he has had proper authority from the Secretary of the Interior for so doing.
- (6) If agent swears to the account-current before any officer other than a clerk or judge of a court of record, see that a certificate of such judge or clerk is attached, showing the official character of the officer before whom the affidavit was made, and that he was legally authorized to administer such oath.
- (7) Where such certificate of official character is furnished, see that it is properly noted in the book kept for that purpose, for future reference and the benefit of other examiners.

REPORT OF EMPLOYÉS.

- (1) See that the names, periods of service, and compensations of employés appearing on such report agree in every particular with the record of employés authorized (vide article on employés).

(2) See that agent swears to the report, or, in the event of his certifying, see that he has proper authority for so doing, and that such affidavit or certificate conforms to the requirements of section 245, Regulations Indian Department, 1884.

(3) If irregular service has been approved on the record of employés in bulk examine the agents' reports of approved irregular employés, to be obtained from division files (vide article irregular employés), to see that the quarterly report under examination agrees fully with such approved irregular reports.

(4) If school employés appear upon the report under examination, go to "Education," and compare it with the record of school employés kept there.

(5) If the report of employés is correct in every particular the following certificate, marked with his initials, is written by the examiner on the report, to be signed by the chief of the accounts division.

DEPARTMENT OF THE INTERIOR, OFFICE OF INDIAN AFFAIRS,
 _____, 188-.

Examined, compared with the record of employés authorized by this office, and found correct.

_____,
 Chief Accounts Division.

(Examiner's initials.)

(6) If any inaccuracies appear in the report, insert after the word "correct" the words "except as to," and then mention the discrepancies.

VOUCHERS.

The vouchers accompanying a cash account are numbered consecutively from one each quarter, such numbering being done by the agent without any special reference to the character of expenditure represented by the voucher, but for convenience of description and clearness of statement in describing the process of examination it may be said that nearly all the vouchers ordinarily appearing in an account can be distributed into the following classes: Open-market purchases, purchases under contract, traveling expenses of agents and employés, transportation of supplies, receipt rolls, annuity rolls, and the method of examining a voucher of each class will be given as briefly as is possible, compatible with clearness and accuracy.

Open-market purchases.

(1) See if agent had authority from Secretary of the Interior to make purchase and whether copy of such authority is attached to the voucher.

(2) If authority given to make purchase gives the specific items and prices to be paid, see that the voucher conforms thereto in every particular.

(3) If the authority granted does not specify items or prices, but refers to an estimate submitted by agent, go to the files division, look in the index under the proper agency and the heading "estimates," to find the file number of the paper. By referring to the files record ascertain whether the paper has been finally disposed of or still remains in the finance division to which it was originally referred. If in the files it can be easily found in the file-box where it belongs. If it has not yet been sent to the files division, go to the finance division register, find the proper number and ascertain the name of the clerk to whom the same was referred and apply to him for permission to inspect the paper. If taken either from files division or the desk of another clerk, to the examiner's desk, a slip bearing the file number of the paper and the name of the examiner must be left in its place to be destroyed when the paper is returned.

(4) If the full account authorized is not expended in the voucher under consideration, a slip must be made marked at the top with the date and number of the authority and the amounts that can be expended for various articles or purposes; then the number of the voucher and the quarter and year and the amounts expended for each article must be entered on such slip for reference in examining other vouchers in the same account. If no further expenditures are made under such authority in the quarter under examination the slip must be put in an envelope, marked "memorandum for examiner of _____ agency," and handed to the division file clerk to be kept until the next account from the same agency is ordered to be examined, then furnished the examiner for his information in case any expenditures may be made under the same authority in such succeeding quarter.

(5) See that the authority under which the purchase was made bears date within the same fiscal year in which the expenditure was made, as all authorities expire with the fiscal year in which they were granted. If incorrect in this particular, note an exception and suspend the amount of the voucher till proper authority is furnished.

(6) If the authority bears a date prior to the beginning of the quarter, the account for which is under examination, but still in the same fiscal year, and no memorandum for examiner is found among the papers furnished the examiner, he must look back through the accounts received subsequent to the date of such authority to satisfy himself that no expenditures have been previously made under the same.

(7) If the voucher does not in every particular come within the limit of the authority as to quantities, prices, and articles, a note of the error must be made by the examiner, referring to the voucher and the account in such manner that it can be identified, and stating in clear and concise language the particular defect in the voucher, what is necessary to correct the error, and suspending the amount of the voucher or the overpayment until the required correction is made or a proper explanation is furnished.

(8) See that the original invoice of purchase is attached to the voucher as a sub-voucher, and that it contains a properly itemized bill of the property purchased and the prices paid.

(9) See that the name of the person in whose favor the voucher is made is the same in every particular as the signature to the receipt appearing thereon. If any discrepancy, note the same, stating in what the error consists, and suspending the amount of the voucher until one in proper form is furnished.

(10) If the voucher is made in favor of a partnership or firm, see that the receipt is signed by the firm name, or the firm name per one of the partners. If such voucher is signed by the firm name per any initial or mark indicating that it was done by a clerk or person other than one of the partners, see that proper authority is furnished from the firm for such person to receive and receipt for money due the firm. If such authority does not appear, the amount of the voucher must be suspended until a properly signed receipt is furnished, and the exception noted.

(11) If the voucher is drawn in favor of a corporation, the receipt must be signed by the corporate name per the name of the officer authorized to receive and receipt for money due such corporation, giving his official title as treasurer, secretary, or whatsoever it may be. If any error exists in regard to this point, the amount of the voucher must be suspended and the exception noted.

(12) If the person in whose favor the voucher is made cannot write, and his name is signed to the voucher by another person it must be designated thus: John (his x mark) Doe, and such signature must also be witnessed. In case the payment is made to an Indian, and the amount is \$10 or over, there must be also a certificate of the interpreter in addition to the witness to signature (vide sec. 302, Regulations Indian Department, 1884). Any error in this regard must be noted and usual suspension made.

(13) The computations in the voucher must be carefully examined to see that the correct amounts are extended and the total correctly footed.

(14) See that the total footing of the voucher is the same as that written in the receipt, also see that the receipt is properly filled up. Note any error in this regard in the usual way.

(15) See that the certificate at the bottom of the voucher is properly filled, dated, and signed by the agent, including the statement that the prices paid were reasonable and the lowest obtainable. Note all defects and omissions.

(16) See that the items purchased and appearing on the voucher are properly entered on Abstract A, of the property account, checking the same on such abstract. If not properly taken up, note exception and suspend the amount of the voucher until the property is accounted for.

(17) See that statement on back of voucher as to whether payment was made by cash or check is properly filled out, and if by check that the number of same is given. Note exception and suspension if this has not been done.

(18) See that the number of the voucher, the name of the person in whose favor the same is made, and the total amount of the same, are correctly entered on the abstract of disbursements.

Purchases under contract.

(1) When a voucher shows a purchase made under contract the examiner should go to the finance division and see if such contract has been made, and if so, whether it has been approved, and whether the articles named and the prices charged in the voucher are the same as specified in the contract, and that none of the articles purchased exceed the quantity contracted for.

(2) Examine the computations appearing in the voucher and see that all amounts are correctly extended and the total correctly footed.

(3) See that the names of all parties are correctly written, and the receipts correctly signed in the same manner as specified above in regard to the voucher for open market purchase.

(4) See that all certificates are properly filled out, dated, and signed by the agent.

(5) If the contract specifies that the goods shall be inspected before delivery or payment, the report of such inspection must accompany the voucher. There should also be a weigher's return showing the weight of the property purchased.

(6) All property appearing upon such voucher must be taken up on Abstract B of the property account. A defect or omission in any of the above particulars is ground for taking an exception and suspending the amount of the voucher until such defect is corrected or omission supplied.

Traveling expenses.

(1) A copy of authority from the Secretary of the Interior for making the journey or incurring the expense, should be attached to the voucher. If no copy is so attached, the record of authorities in the files division should be examined to ascertain if such authority has been granted.

(2) If any limit is fixed in the authority to the amount to be expended, the voucher must not exceed such limit.

(3) Subvouchers for traveling expenses must be taken by the agent whenever practicable and attached to the voucher. Such subvouchers when for board must show the time and rate and be signed by the person to whom payment was made.

(4) When no subvouchers are furnished the reason for failure to do so must be stated.

(5) The voucher should be made in favor of the agent and the receipt be signed by him except where the expense was incurred by some employé other than the agent, in which case the voucher should be made in the name of and be signed by the person incurring the expense, and there must also in such case, in addition to the subvouchers, be an affidavit of such person attached to the voucher, reciting that the various items appearing therein are correct, and that they have been verified by the memorandum of such expenses kept by the person making such affidavit, as required in section 135, Regulations, 1884.

(6) If the voucher is in favor of the agent, the certificate at the bottom must state that the various items have been verified by his memorandum of expenses. Section 135, Regulations of 1884, must be fully complied with.

(7) Each subvoucher must be examined to see if the computations are correct and the amount of the same properly entered on the voucher; also to see that there is not more than one payment made for the same time or service, and that such subvouchers are properly signed.

(8) If railroad fare is included in such traveling expenses, the table of subsidized roads in Department Regulations, 1884, must be examined to see that such roads are not included in those over which fare is paid. Should such payment be made the amount of same must be disallowed.

(9) The total amount of the voucher must be properly entered on the abstract of disbursements.

If the voucher is defective in any of the above-mentioned particulars, except (8), an exception must be taken by the examiner, and the amount involved in such error suspended until proper correction is made by the agent.

The same regulations apply to such voucher in regard to filling and dating certificates, signing such certificates by the agent and specifying whether payment was in cash or by check, as apply to vouchers for open market purchases (q. v.).

Transportation vouchers.

A large part of the supplies purchased for the Indians and for use at the various agencies are delivered by transportation contractors at railway stations or boat landings at some distance from the agencies. The transportation of these supplies from such points to the agencies is usually performed by Indians. The form of voucher on which payments are made for such service is prescribed in section 320 of Department Regulations, 1884, and in the examination of such voucher the following points must be noted:

(1) See that a subvoucher is furnished for each load transported, which sub voucher must show the package numbers and weights of the various packages, and be signed by the Indian to whose care they are intrusted, his signature thereto being witnessed, as required in other cases.

(2) If the claims of the transportation contractor have been received in the Indian office, refer to the accounts division property book for the numbers of such claims, and procure the claims from the files division, leaving in place of each a properly numbered slip with the name of the examiner taking the same. Each bill of lading attached to the voucher must be compared with such transportation claim, and every package identified by number and weight. Each item, as identified, should be checked on both the bill of lading and the transportation claim, in order to show what

has been verified, and to prevent confusion. This comparison is necessary to ascertain that transportation is not paid more than once on any portion of the supplies, and that nothing but Government supplies are so transported.

(3) If claims of transportation contractor have not been received at the time of the examination, the account is held on the examiner's desk for a reasonable time to await their receipt. If by reason of failure of the transportation contractor to submit his claim promptly, such claim is not received by the time it is deemed necessary to forward the account to the Treasury, the examiner refers again to the division property book for the numbers of the invoices showing the supplies purchased for the agency under consideration. Such invoices are obtained from the files division in the same manner as mentioned above in referring to transportation claims, and the package numbers and weights on the bills of lading attached to the voucher are then identified and verified by comparison with such invoices, checking the items as above mentioned, each bill of lading, when fully checked, being also checked on the voucher.

(4) When the property transported has all been verified and checked, the voucher must be examined to see that the rate paid is reasonable; that the computations are correctly made; that the receipts are properly signed and witnessed; that the certificate of the interpreter is properly made and signed, and that all certificates to be made by the agent are properly filled out and signed by him. The regulation in regard to payment being made by check or cash must be observed, and then the total correctly entered on the abstract of disbursements.

Any defect or error discovered at any stage of such examination must be noted, describing it in such manner that it can be easily identified, and suspending the amount involved until properly corrected. The exception so taken should instruct the agent what is deemed necessary to correct such defect.

Receipt rolls.

Agency employés, both regular and irregular, when paid for their services are required to sign a receipt roll, showing the name and position of the employé, the rate of compensation, the period of service, the amount due, and the amount paid. Such receipt roll is submitted as a voucher in the agent's cash accounts, and in the examination of such voucher the following points must be observed:

(1) The voucher must be compared with the report of employés, after verification of same (*vide* report of employés) as to names, positions, and periods of service of the employés appearing thereon.

(2) If found correct as to above points, compute the amount due each employé, see that the receipt is properly signed, and if any signatures are made by mark, that the same are properly witnessed.

(3) If payment of \$10 or over has been made to an Indian on such voucher there must be a proper certificate signed by the interpreter, as required by section 302, Department Regulations.

(4) Receipt-rolls for irregular service must be made out by months, showing the days on which service was rendered by each employé appearing thereon. The requirements as to witnesses, interpreter, and agent's certificates apply to such roll in same manner as to rolls of regular employés.

(5) The total footings of such voucher should be verified and the amount carried to the abstract of disbursements.

In the examination of such voucher overpayments are disallowed and others suspended for explanation and correction, in the same manner as heretofore mentioned in connection with other vouchers.

Annuity rolls.

When annuity pay-rolls appear in an agent's accounts it is necessary to verify their correctness in regard to certain particulars, and the usual mode of procedure is as follows:

(1) When payments have been made to persons acting as guardians for minors or others a certificate of guardianship must be attached to the roll, setting forth the fact that such person (giving number on roll and name) is the person properly authorized to receive and receipt for money due such minor or other person (giving number and name). Such certificate must be signed by two or more of the principal men of the tribe, and verified by an interpreter and two disinterested witnesses. These certificates should first be examined and the names and numbers appearing thereon should be checked on the rolls. Each certificate should also be checked to show that it has been examined and noted on the roll.

(2) Each name appearing on the voucher must be compared with the preceding roll for the same tribe and identified thereon as to name, age, sex, and family relation, except those shown on the voucher to have been born subsequent to the last preceding payment.

(3) All signatures must be witnessed by two disinterested witnesses who can write their names.

(4) All additions must be verified, and it should also be seen that the correct total is carried to the certificates of the agent at the end of the roll.

(5) Where an annuitant is noted in the margin of the roll as having died, it should be noted that such death did not occur prior to the last preceding payment, as but one payment can be made on account of an annuitant after death.

(6) The certificates of the interpreter, witnesses, and agent, at the end of the roll, must all be properly filled, dated, and signed.

(7) The total amount of such annuity roll should appear properly entered on the abstract of disbursements.

All errors appearing on the face of the roll, as well as all discrepancies between it and the prior roll, must be noted, and an exception taken in the same way as directed in regard to the other classes of vouchers heretofore mentioned.

All unauthorized payments must be disallowed.

ABSTRACT OF DISBURSEMENTS.

After the examiner is satisfied that all vouchers representing the expenditure of money have been properly entered on the abstract of disbursements, the same must be footed and the total placed to the credit of the agent on the account-current.

CERTIFICATES OF DEPOSIT.

When a certificate of deposit accompanies an account, showing funds deposited to the credit of the United States during the quarter, the amount of the same should appear upon the account-current to the credit of the agent.

CLOSING THE ACCOUNT-CURRENT.

After all entries to the credit of the agent have been made on account-current, foot both debit and credit sides of the same, strike the balance and bring down as balance due United States at end of quarter.

PROPERTY ACCOUNT.

After the examination of the cash account has been completed and all the errors and discrepancies noted, the property account is taken up.

The papers comprising the property account are the property return, six abstracts designated A, B, C, D, E, and F, with the vouchers and papers belonging to each and a return of medical property.

The property return is an alphabetically arranged statement, showing the amounts and kinds of property belonging to the Government in the hands of the agent at the beginning of the quarter, the amounts and kinds received during the quarter, as shown by Abstracts A, B, and C, the amounts and kinds expended for various purposes during the same period, as shown by Abstracts D, E, and F, and the balance remaining on hand at the end of the quarter. The papers are taken up for examination in the order above indicated.

Property return.—(1) The property return must be compared with the duplicate return for the preceding quarter, to ascertain whether all the property remaining on hand at the close of such preceding quarter has been correctly brought forward. If a less quantity of any article is brought forward than was on hand at the close of the previous quarter, the error must be noted and the difference charged to the agent. If a greater amount is brought forward than appears to have been on hand, such fact must be noted, and the agent requested to explain from whence he obtained the excess. The property return will be again referred to in the conclusion of the examination.

Abstract A.—(1) This abstract shows property purchased in open market, and should be carefully examined to see that all the items appearing thereon have been checked during the examination of the cash vouchers for open-market purchases.

(2) The various amounts of the different kinds of property appearing on this abstract must be accurately footed and such footings entered on the proper line and under the proper heading on the property return.

Abstract B.—This abstract shows, or should show, the property received during the quarter, which was purchased under contract, and should be examined with reference to the following points:

(1) The abstract must be compared with the "Property Book," which contains an abstract of all the supplies purchased under contract, to see if the amounts taken up agree with the amounts appearing on such book, as having been purchased for the agency.

(2) If any differences appear between the book and the abstract, the file number of the invoice should be taken from the book and the invoice procured from the files division compared with the abstract. If there is still a difference for which there appears no satisfactory explanation, the file number of the transportation claim should be taken from the book and such claim obtained from files division, to see if any shortage has been claimed therein by the agent. Where a less quantity is taken up than appears to have been purchased and delivered, the difference must be noted and charged to the agent. If a greater amount is taken up than appears to have been furnished, the agent should be called upon to explain the source from whence obtained.

(3) The footings of all items on such abstract should be verified and such footings carried to the property return in the same manner as prescribed in regard to abstract A.

Abstract C.—The agent must report upon this abstract all articles manufactured or produced in any manner at the agency during the quarter, all increase of agency stock, all property that may have come into his hands from any source other than purchase or consignment, and all property taken up to correct errors in former accounts.

(1) The abstract must be examined to see that it bears, in addition to the certificate of the agent, the certificate of each and every employé having charge of any branch of the agency work, showing that it is a true exhibit of all articles so received at the agency during the quarter. If no property has been so received during the quarter, a certificate to that effect, signed by each employé above referred to, as well as by the agent, must appear upon the face of the abstract.

(2) The various items appearing on the abstract should be accurately footed and carried to the property return in the same manner as directed in regard to abstracts A and B.

Abstract D.—This abstract shows issues to Indians, and the principal vouchers accompanying it are weekly issues, treaty annuity issues, and occasional issues to the aged, sick, and infirm.

As to weekly issues, the voucher must show—

(1) The kinds of supplies issued, the number of rations issued each family, the number in each family, the receipts of the heads of families for the supplies so issued, which receipts must be witnessed.

(2) The number of rations of each article appearing as issued on the voucher must be footed and reduced to pounds.

(3) The column headed "Number in family" must be footed and computation made to ascertain that the amount issued does not exceed the limit prescribed in the table of rations contained in Department Regulations, 1884.

(4) The certificates of the two witnesses on the back of the voucher must be compared with the number of pounds issued to see that they agree in every particular.

(5) The certificates of the interpreter, witnesses, and agent must be carefully examined to see that they are correctly filled out and signed.

(6) Where issues are made for a longer period than one week, the examiner should ascertain, from the voucher, if possible, otherwise from the office records, whether authority was granted the agent to make such issues.

(7) The total amount issued on each voucher should be correctly carried to the abstract.

As to annuity issues, in the examination of a voucher the examiner should notice—

(1) That no unjust discrimination is made in regard to the quantities issued by giving some too much and others too little.

(2) That where wagons, harness, or agricultural implements are issued, that the agent has proper authority for so doing, as required by section 552, Department Regulations, 1884.

(3) That all certificates are properly filled and signed, and all signatures by mark properly witnessed.

(4) That the voucher is correctly footed, and all the footings correctly entered on the abstract.

As to occasional issues the same rules are to be applied to vouchers as to annuity issues.

When the footings of all the vouchers have been verified as correctly entered on the abstract, the abstract itself must be examined to see that all footings appearing thereon are correct, and then that such correct amounts have been properly entered on the property return as expended.

Abstract E.—This abstract shows the amounts of the various kinds of subsistence sold to employés during the quarter. The examiner should notice—

(1) That the amounts entered at the top of the abstract as "price" and "transportation" are correct as to each article appearing thereon. (This can be ascertained by consulting the contract tables.)

(2) That the quantity of supplies sold each person amounts to the sum set opposite the name of such person;

(3) That the abstract bears, in addition to the affidavit of the agent as to its correctness, the affidavit of each employé showing that such abstract shows all supplies purchased by him from the Government during the quarter.

(4) That supplies are sold to employés only.

(5) That the quantities sold are correctly footed on the abstract, and properly entered as expended on the property return.

(6) That the total amount received for supplies sold is checked as having been carried to the account current as a charge against the agent. (Such check should be made in examination of the cash account, *q. v.*)

If the amount shown on the abstract to have been received for supplies sold is not as much as the given quantities amount to at the correct prices, such supplies must be charged to the agent until he accounts for the proper amount.

Abstract F.—This abstract is the one upon which is reported all property expended at the agency, such as stationery, fuel, feed, supplies for farm, mill, shops, and schools; property destroyed by board of survey; stock strayed, stolen, and died; cattle slaughtered for issue, &c. The examiner must see—

(1) That the expenditure of each article dropped must be verified by the certificate of the farmer, miller, or other employé under whose supervision the expenditure was made. In such certificate the disposition made of each article must be shown.

(2) That where credit is taken for stock lost, stolen, or dead, the fact of such loss or death must be established by the affidavit of one or more disinterested persons in addition to the agent's certificate.

(3) That where property is dropped as destroyed by order of a board of survey, the fact that the report of the board recommending such disposition of the articles so dropped has been approved by the office—(if a copy of letter of approval does not accompany the voucher, it can probably be found in Accounts Letter Book)—and that such destruction is verified by the sworn report of the persons who destroyed the condemned property, showing the time when and the manner in which the destruction was accomplished.

(4) That in dropping subsistence supplies issued to schools, the requisitions submitted as vouchers must be properly filled, dated, and signed, and the table of rations prescribed in Department Regulations, 1884, must not be exceeded.

(5) That all articles manufactured or fabricated out of goods or property dropped on this abstract must be taken up on Abstract C.

(6) That when property is dropped as worn out or worthless, it must be done in conformity with section 387, Department Regulations, 1884.

(7) That where cattle are slaughtered and the number and gross weight are dropped on this abstract, the net beef derived from such slaughter, and also the hides, must be taken up on Abstract C, both the gross weight dropped and net weight taken up being verified by the affidavit of the butcher or farmer or both.

(8) That where beef hides are sold they must be dropped on this abstract and the certificate of the purchaser must be submitted showing the number of hides bought by him and the price paid, the amount being taken up on the account current.

When all the vouchers have been checked upon the abstract, the footings must be verified and dropped on the property return in the same manner as directed in reference to Abstracts D and E.

Whenever, in the examination of a property account, an error of any character is found it should be noted by the examiner. Where the error consists in taking credit for more property than the amount expended, the difference should be charged to the agent; where credit is taken for less than the amount shown by the vouchers to have been expended, the attention of the agent should be called to such fact and an explanation requested.

CLOSING PROPERTY RETURN.

After the verified footings of all the abstracts have been properly checked on the property return, the amounts charged to the agent should be footed, then the amounts to be credited to the agent should be footed and deducted from the amounts charged and the balances brought down as remaining on hand at the end of the quarter.

MEDICAL PROPERTY RETURNED.

This return must show all medical property brought forward as on hand at close of the preceding quarter, the amount received during the quarter, also the amount expended with the sick and otherwise, and the amount remaining on hand at the end of the quarter.

The amount brought forward from the preceding quarter is verified by comparison with the duplicate return found with the preceding account. The amount received during the quarter is checked from the invoice of purchase, the number of which is found by reference to the property book, the invoice being found in the files division.

The expenditures are verified by the certificate of the physician. Whenever articles are expended otherwise than "with sick," a certificate stating the manner in which each article was expended must accompany the return.

EXCEPTIONS.

After the examiner has completed the examination of an account, he passes the account, together with his notes made during examination, to the reviewer, who verifies the exceptions taken and notes any additional errors that he finds. The account, with the exceptions, is then returned to the examiner with such additions and alterations as the reviewer deems proper, and the exceptions are then written out in full with copying ink by the examiner, who affixes his name thereto; passes the same to the reviewer, who also signs his name on the first page, then hands to the chief of the accounts division, who places his initials in the upper right-hand corner and passes the exceptions to the division file clerk, who press-copies them in a book kept for that purpose and hands them back to the examiner, who folds them and places them in jackets—cash and property separate—indorsed in the following form:

Cash accounts of ——— ———, Indian agent, ——— Agency, ——— quarter, 188—.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
—————, 188—.

Examined and allowed, except as noted, and respectfully referred to the Second Auditor of the Treasury for settlement.

—————,
Commissioner.

—————, Exr.

The original account is then made into two compact packages, cash and property the jackets, with their contents, placed on the front of the respective packages and the letter of transmittal on the back of the cash package, and each is then securely tied with red tape. The duplicate account is now returned to the file clerk, to be kept in the Indian Office for reference, and the packages are handed to the chief of the division, who places his initials on the upper right-hand corner of each jacket and then sends them to the Assistant Commissioner, who places his initials immediately under those of the chief of division and forwards the packages to the Commissioner, who affixes his signature on the line at the bottom of each jacket. After being signed by the Commissioner, the account is returned to the chief of the accounts division, then sent to the register clerk, who takes the exceptions from each jacket and copies both the jacket and exceptions in a book kept for the purpose, then replaces them, and enters in the index of accounts opposite the proper agency and quarter the name of the examiner, the date of examination, the book and page where the exceptions are recorded. The register clerk now obtains from the file clerk the press copy of the exceptions and forwards the same to the agent for his information. The letter of transmittal is taken from the back of the cash account, a description of the account entered on a receipt book, and the packages and receipt book sent to the Second Auditor of the Treasury by a messenger, who delivers the packages and takes the receipt of the Second Auditor for the same in the receipt book, which he brings back and delivers to the register clerk, who makes an entry in the Index of Accounts, showing the date such account was sent to the Treasury and the copy of exceptions to the agent. A similar note is made in the margin of the record containing the exceptions, opposite such exceptions. The register clerk now marks upon the letter of transmittal the following action: "Sent to Second Auditor ——— —, 188—," enters both actions now appearing upon such letter opposite the proper number, in the Division Register, and then sends the letter to the files division, where the actions are again noted in the margin of the Files Record, and the letter placed in its proper place in the file box.

AGENCY EMPLOYÉS.

Annual appointment of employés at agencies.—Each agent is required, on or before May 1, each year, to submit a list of such positions as he deems essential to the proper transaction of the business at his agency during the fiscal year commencing the 1st of the following July, and recommending the compensation he deems proper for each position. When such a list is received in the Indian Office it is marked by the Assistant Commissioner with the letter A, which signifies that it is to be considered and acted upon by the accounts division, and is sent to the files division, where it is stamped with an office number and the date of its receipt; a brief is also made of its contents to be entered in the files records. The paper is then sent to the desk of the chief of the accounts division, who marks it with the name of the clerk in charge of the employé desk, then passes it to the clerk keeping the division register, who enters

in a book kept for the purpose the number and date of the paper, the name of the writer, the name of the clerk to whom referred for action and the date of such reference, and then marks upon the paper the book and page where so entered, and the date of entry. The paper then passes to the clerk to whom it has been referred, and he examines it to ascertain whether the amount estimated for will exceed the limit fixed by law for employes at any one agency; whether, if it comes within the legal limit, it exceeds the amount available for pay of employes at that particular agency; whether either the number of employes estimated for or the compensation to be paid any of them is excessive as compared with previous years at the same agency, or with other agencies where the Indian population approximates that of the one under consideration. Reports of inspectors and special agents made during the year in regard to employes are also considered.

If the estimate appears to be incorrect in any of the above particulars such changes and corrections are made as will bring the list within the terms of the statutes and Department regulations. The list (or amended list as the case may be) is then entered in detail in a book prepared for the purpose, showing each agency separately, and transmitted to the honorable Secretary of the Interior for his approval. When the Secretary has examined the lists appearing in the book and noted such changes as he deems proper it is returned to the Indian Office accompanied by a letter of approval or authority, which goes from the Assistant Commissioner to the file-room, where it is briefed and stamped "Authority No. —," and the date of its receipt, after which it takes the same course as the estimate above described until it reaches the desk from which it started. A letter is then addressed to each agent informing him of the positions and compensations authorized at his agency by the honorable Secretary, giving whites and Indians separately, and also the amount allowed for employes at the agency for the year. The agent is also instructed to forward on July 1, or as soon as possible thereafter, nominations of persons to fill the positions authorized, such nominations to be submitted on the blank descriptive statement furnished for the purpose, showing the following particulars in regard to each employe: the name, position, compensation, sex, race, age, whether married or single, where born, and whence appointed.

These letters to the agents are written in the "rough" by the clerk, who puts his initials on the lower left-hand corner, and then passed to the copyist who prints them on the type-writer, after which they are read by the chief of the division, who marks his initials in the upper right-hand corner of the first sheet of each letter and passes them to the Assistant Commissioner, who reviews them and puts his initials under those of the chief and sends them to the Commissioner for his signature, after which they are returned to the accounts division and press-copied in the division letter-book.

Each of the original estimates now has the action entered upon it in the following or similar words: "Letter to Agent ———, ——— —, 188—," giving the date of the letter, and is then passed back to the division subregister, where the action is entered opposite the proper number, and the paper sent to the files division, where the action is again noted opposite the proper number in the record containing the brief of the contents, and it is then placed in the files, in its proper place chronologically and numerically. When nominations are received in answer to the letters above mentioned, each paper takes the same course as the estimates until it reaches the same clerk to whom the estimates were referred. Each list of nominations is then carefully examined and compared with the corresponding list authorized by the honorable Secretary to ascertain whether it conforms thereto as to the number of employes, the designation of each of the various positions and the compensation; also to ascertain whether in any case whites have been nominated for positions where Indians were authorized. If found correct, the names submitted by the agent are entered in a book, called the employe record, which shows the personal description of each employe as it appears on the descriptive statement, and also shows the file number of such descriptive statement. When the names have been properly entered on such record and checked on the descriptive statement, a letter bearing in the upper left-hand corner the file number of such statement, thus 20313-188—, is addressed to the agent informing him that the nominations have been approved, specifying the names, position, and compensation of each employe. Such letter undergoes the same process above described of copying, reviewing, initialing, signing, and press-copying, and the descriptive statement is marked "Approved, and letter to Agent ———, ——— —, 188—," then returned to the subregister, from whence it goes to the files division to be disposed of in the same manner as the estimates.

Changes in agency employes.—When the service of an employe at any agency terminates by reason of his death, resignation, suspension, or discharge, it is the duty of the agent to report such fact on the descriptive statement provided for the purpose, giving the date when and the reason why such service terminated. In the event of another person being nominated to fill a vacancy arising from any cause, the name and personal description of such person with the date upon which his serv-

ice began, must be given upon the same blank and in the same manner as required in regard to the annual list. Such report, upon reaching the Indian Office, takes the regular course, receiving at each step a mark or check that enables one to tell at a glance how far it has gone and where it properly belongs, until it reaches the employé clerk who compares it with the employé record to see if the person who is reported as going out of the service appears upon such record, also to see if the nomination to fill the vacancy is properly made as to the designation of position and compensation, and whether the person so nominated holds any other position in the service. If found incorrect it is returned to the agent for correction, and a slip bearing the same file number and showing the action is kept in its place until it is returned. If correct in every particular, the changes are entered in the record and a letter addressed to the agent notifying him of such fact, which letter goes through the regular course of copying, review, signing, and press-copying. The action taken is noted on the report thus, "Approved, and letter to Agent ———, ———, 188—," and it is then sent to the files division through the regular channel, being checked at each step backward until it reaches its resting place in the file box.

Irregular employés.—Agents are allowed, under certain restrictions, when sufficient funds applicable to such purpose are available, to employ irregular service to meet exigencies which are constantly arising, and such service must be reported at the end of each month on a blank provided for the purpose, showing the character of the service rendered, the necessity for the same, the days upon which such service was performed, the rate of compensation, the total amount paid, and the name of the person who performed the work. A report of this character, when received by the office, takes the same course as estimates for employés and annual nominations, until it reaches the clerk in charge of employés, who examines it to see if the work performed is of proper character, whether the agent's statement of the necessity for the same is satisfactory and the rate of compensation reasonable; also whether the number of days upon which labor was performed is correctly carried out, whether Sundays are included, and if so whether the work is of such character as would warrant the agent in so doing, and whether the computation of the amount paid is correct. The clerk must also satisfy himself that the amount so expended does not exceed the limit fixed by law for employés at any one agency, nor the amount allowed for employés at the particular agency under consideration. If any white labor appears on such report which has not been previously authorized, a letter is addressed to the honorable Secretary of the Interior, inclosing the report and requesting his approval of the same, which letter takes the regular course, being finally press-copied in the division letter-book and then forwarded. When the Department letter returning such report is received, it goes to the files division to be stamped with its proper authority number and then through the regular channels of checks and entries until it reaches the clerk who wrote the letter requesting the authority. A letter bearing the file number of the report and the authority number is written to the agent notifying him of the approval of such report, specifying the white and Indian labor separately. This letter goes the usual round of review, checks, and signing, being finally press-copied before forwarding to the agent. An entry is made on the employé record of the substance of the report, which is then marked "Approved, and letter to Agent ———, ———, 188—." The name of the clerk to whom the report was first referred is then canceled and the name of the clerk having charge of the accounts and division files substituted therefor. The report then goes to the division subregister, where the change in reference is noted, after which it goes to the division files to be considered in connection with the agent's accounts when they are taken up by the examiner, after which it retraces its course to the files division where it afterwards remains.

APPOINTMENT OF AGENTS.

Commission from President to Assistant Commissioner and by him assigned to accounts division.

To general files division for record.

From general files division to chief of accounts division, who refers it by indorsement to clerk to whom assigned.

To accounts division subregister for record of file mark, date, and name of writer, name of clerk charged to, and date of such charge.

Indorsed with date and page on which entered on subregister and charged to clerk.

To clerk's desk for action.

Letter written notifying appointee, informing him as to salary, amount of bond required, expenses allowed, &c., and instructing him to notify the office if he accepts.

Blanks for official bond filled up and completed as far as possible, and sent with instructions as to proper manner of executing it.

Bond received from agent goes to Assistant Commissioner and follows the same course, receiving same action as the commission until it reaches the clerk in accounts division to whom assigned.

The clerk examines it to see that the date of execution of bond and oath of office are even.

That the affidavits of sureties and of United States judge or attorney are not earlier than date of execution of bond.

That there are at least two sureties.

That the full name of the principal and each of his sureties are written in the body of the bond and signed to the bond, and that the place of residence of each surety is designated in the body of the instrument.

That seals are attached to all signatures of principal and sureties.

That two persons sign as witnesses, stating their residence, and that it appears for whom each witness signs.

That each surety states under oath the nature of the property which he offers as surety. It must appear that the property offered is available upon execution. If a woman is offered as surety, it must appear that she is single.

That the real estate in which the sureties justify aggregates at least double the penalty of the bond.

That the officer before whom any of the acknowledgments are made or oaths taken affixes his official seal, and that a separate and distinct impression of the seal is made for each acknowledgment or oath.

That the official standing of the notary public, justice of the peace, United States commissioner, or other officer qualified to administer oaths (except a clerk of a court of record), before whom an acknowledgment is made or oath taken, is evidenced by the formal certificate of the clerk of the proper court of record or other competent authority.

That the sufficiency of the sureties is certified to by a United States district judge or attorney.

That none of the sureties offered are bonded officers of the United States.

That no erasures or mutilations of any kind have been made, except such as have been certified to as having been made before signing.

If the bond is found defective it is returned to the appointee with a letter pointing out the defect and instructing him what is necessary for him to do to remedy it.

If the bond is considered acceptable by the clerk he places his initials on it and submits it to the chief of division for his examination.

If the chief of division is satisfied with it he places his initials on it and submits it to the Assistant Commissioner for his consideration. If found satisfactory by Assistant Commissioner he initials it and submits it to the Commissioner, who, if it meets his approval, transmits it by indorsement to the honorable Secretary of the Interior for his consideration.

The Secretary returns it approved or disapproved, as the case may be. If not approved it is returned to the appointee with further instructions. If approved it goes to accounts division, where it is copied in the permanent record, and by letter forwarded to the Second Comptroller of the Treasury Department for file in his office.

The Comptroller is notified of the date of the agent's appointment, whether with consent of the Senate, or *ad interim*, date of oath of office, who the new agent succeeds, whether the old agent's term had expired or he was suspended, and whether the new agent has given any other bond under said appointment.

Second Auditor notified by letter of name of new agent, agency appointed to, date of appointment, term of service, who he succeeds, date of oath of office, date of bond, and amount of bond.

Finance division notified of new agent's name, agency appointed to, date and amount of bond.

Commission from the President copied on permanent record and forwarded to new agent.

Appointee notified that his official bond is received and approved, and instructed to proceed to agency and to receipt to old agent for public property. Informed of most direct route to agency, that his personal traveling expense going to agency will be allowed, therefore a proper account must be kept and vouchers taken.

A letter written to old agent instructing him to turn agency over to new man on his application; to deposit all public funds remaining in his hands or to his official credit, after paying all indebtedness for services of employes, &c., incurred by or under him, to the credit of the United States, or to issue certified vouchers for such approved outstanding liabilities as he may not have funds applicable to payment of; to turn over to his successor any miscellaneous receipts, Class IV, he may have, and, if he served out the term for which appointed, that his personal traveling and incidental expenses to his home will be allowed, and that he must keep a proper account of same, sustained with vouchers,

Record of change made on indexed roster of agents and changes at agencies, showing date appointment or confirmation takes effect and when expires; whether by advice and consent of Senate or *ad interim*; date of official bond; amount of official bond; date new agent receipted to old for public property and took charge of agency, which governs date his pay as agent commences.

And in reference to outgoing agents:

Date immediately preceding that on which new agent receipted to him which governs his termination of service and pay.

Nature of change, whether by expiration of term of service or suspension.

If suspension, file mark and date of letter notifying him of said suspension and date of transmittal of same to him by letter from accounts division.

Letter transmitting commission indorsed with date agent notified, date blanks for bond sent, and date commission sent to new agent.

To accounts division subregister for action to be noted, and clerk credited with return of letter.

To general division of files and records for record of action and filing.

Letter transmitting agent's bond indorsed with: Date bond submitted to the Secretary; date bond transmitted to Comptroller; date Auditor notified of appointment of agent and filing of bond; date new agent notified that bond is approved; date old agent is notified to turn over public property to new agent.

To accounts subregister that action may be recorded and clerk receive credit for letter, and thence to general files division as above explained.

When new agent's letter notifying this office of date on which he receipted to old agent and assumed charge of agency is received, the Assistant Commissioner assigns it to accounts division, and it goes to the general files division to finally reach the clerk in accounts division to whom assigned for action.

The Second Comptroller is notified of said date by letter.

All other divisions of the Indian Office are notified in writing of the change.

Record is made on the indexed roster of agents of said date and of file mark of agent's letter.

Letter indorsed with date Comptroller notified, date Auditor notified, all divisions notified.

Letter to accounts division subregister for record of action and credit to clerk, and thence to general files division as before explained.

Letter to Department transmitting suspension by President of an agent assigned by Assistant Commissioner to accounts division.

To division of files to the clerk to whom assigned by the channel above described, to clerk's desk to whom assigned.

Copy of President's letter suspending agent made for record in this office.

Original of President's letter of suspension to agent by letter of transmittal.

Comptroller notified by letter; Auditor notified by letter; all divisions notified in writing.

Letter of Department transmitting President's letter of suspension indorsed with date original sent to agent; date Comptroller notified; date Auditor notified.

All divisions notified.

To subregister accounts division for record of action and credit to clerk and thence to general files division as above stated.

When an agent's term of service expires, before he can be reappointed and qualify by filing an acceptable bond, &c., accounts division writes to Department explaining all the circumstances and recommending that said agent be appointed farmer-in-charge of the agency, at a compensation named, to take effect the day immediately succeeding that on which his term of service under his appointment as agent expires.

Department letter in reply to Assistant Commissioner by him assigned to accounts division.

To division of files and records and thence by channel above described to clerk's desk to whom assigned.

The agent is notified by letter of his appointment as farmer-in-charge and instructed to close his cash account under his official bond with the day his appointment expires; to deposit all balances of public funds in his hands or to his official credit on the evening of that day to the credit of the United States, but that he will remain responsible under his bond for all public property in his charge when his term as agent expired until a properly qualified agent takes charge of the agency.

The Comptroller is notified by letter, inclosing copy of Department letter of appointment. Informed date it takes effect, rate of pay, and that the agent's cash account will close with date preceding that on which appointment as farmer-in-charge takes effect, but that the property account will be continued up to the end of the current quarter or until a regular agent takes charge.

Auditor notified by letter to same effect,

All divisions notified.

Department letter appointing the farmer-in-charge indorsed with: Date of letter of instructions to appointee; date of letter of notification to Comptroller; date of letter of notification to Auditor.

All divisions notified.

To subregister of accounts division for record of action and credit to clerk, and thence to general files division.

Appointment recorded in indexed roster of agents and agencies, viz: Name of appointee; date agent's term ceased; date farmer-in-charge to receive pay from; file mark of Department letter of appointment and date of office letter instructing said farmer-in-charge.

Comptroller's letter acknowledging receipt of Commissioner's letter transmitting agent's bond.

To Assistant Commissioner for assignment to proper division.

To division of general files and records, and thence to clerks to whom assigned by channel before explained.

Noted by check and marked "File."

To subregister accounts division for record of action and credit to clerk, and thence to general files division.

All letters referred to above as being written by this division require the following described action:

A rough of the letter is written by the clerk engaged on the work. The rough is submitted to the chief of accounts division for his consideration. If approved by him he affixes his initials to it and hands it to the type-writer, who copies it.

The copy is then handed to the chief of division, is read by him, and if found correct he affixes his initials and refers it to the Assistant Commissioner who, if it is merely a routine matter, reads, and if it meets his approval, signs it. If it is a paper requiring the signature of the Commissioner, the Assistant Commissioner reads and merely notes his approval by affixing his initials, and it is then submitted to the Commissioner for his consideration and signature if approved. In either case, after being signed, it returns to accounts division to be press copied, put in an envelope, sealed, addressed, and mailed.

The rough is then marked as copied and transferred to general files division to be filed for future reference if required, and the copy in the press book, subject indexed.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the accounts division of the Indian Office, Department of the Interior:

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received during 1887.	Disposed of in 1887.	Pending Mar. 1, 1887.
Accounts.....	115	417	396	136	435	484	87	440	408	119	90	87	122
Explanations to accounts—sets.....	22	361	374	9	413	405	17	449	453	13	72	77	8
Letters.....	182	8,227	8,300	109	11,150	11,155	104	11,747	11,693	158	1,736	1,800	94
Miscellaneous papers.....	.....	6,596	6,596	.....	7,321	7,321	.....	7,320	7,320	.....	1,141	1,141	.....
Claims.....	.....	1,544	1,544	.....	2,553	2,553	.....	2,957	2,957	.....	717	717	.....
Bonds.....	.....	55	55	.....	71	71	.....	76	76	.....	8	8	.....
Sanitary reports.....	.....	721	721	.....	780	780	.....	789	789	.....	166	166	.....
Commissions.....	.....	34	34	.....	66	66	.....	62	62	.....	10	10	.....

ACCOUNTS.

In regard to the statement showing the number of accounts on hand March 1, 1887, it is remarked that a comparison of this number with the number on hand January 1, 1887, will not be a fair one, for the reason that these accounts, as has hereinbefore been stated, are received quarterly, and thirty days are allowed after the expiration of the quarter in which to prepare them, and, therefore, the only fair comparison which can be made is to take the same period in each quarter and compare the number of accounts at that time. On the 1st of January, 1887, there were pending and undisposed of 122 quarterly accounts, and on the 1st of April, 1887, a corresponding quarterly period, there were pending and undisposed of 100 quarterly accounts. Since that, during the first quarter of 1887, the number of pending accounts was reduced 22.

In order that this matter of the examination of accounts may be more clearly understood, it should be noted that in order to their proper examination, and prior thereto, purchases under contract should be entered upon the property books of the office; goods placed in the hands of transportation contractors should have been receipted for by the agents and their receipts received in this office, and the claims for transportation settled and entered up; changes of employes properly reported, approved, and made of record; authorities for exigency purchases, traveling expenses, &c., obtained from the honorable Secretary of the Interior; and, in fact, so many things to be done that it is impracticable to have these accounts examined up any more nearly than they are at the present time. About 100 accounts are received each quarter, and we have on hand to-day only the number received since the 1st of January, 1887. It should also be noted that the work in this direction is more nearly up to date than it was on the 1st of January, 1884, although, while the force of the division at that time numbered 21, yet for the past year it has been reduced to 17.

It is safe to say that the work of the division is kept up practically to date; the only items of work that are not transacted within twenty-four or forty-eight hours after receipt being such as require several stages of action (in which case the different actions are taken as rapidly as the nature of the business will permit) and the examination of accounts (in regard to which, as previously explained, it is not practicable to have them examined nearer to date than they are at present).

The principal papers included under the head of letters are: Reports of boards of survey; inspectors' reports; special agents' reports; charges against agents and agency employes; applications for leave of absence; applications for instructions; applications for authority; agents' monthly reports; agents' monthly statements of, and communications on, subjects too various to specify here; indebtedness of employes.

Miscellaneous papers are mostly vouchers for weekly issues to Indians, weekly and monthly statements of funds in hands of agents and special disbursing officers, and weekly supply reports.

Claims are invoices for supplies of every nature purchased and shipped to agencies and Indian schools by this office, and all claims for transportation of said supplies, as well as all purchases by agents and school superintendents, for which they issue certified vouchers, to be paid through this office.

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employes in the accounts division of the Indian Office, Department of the Interior:

Character of business.	Average amount transacted during each month.											
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.												
Accounts, quarters.....	45	32	29	31	36	58	34	23	22	28	36	22
Explanations to accounts, sets	31	31	31	31	31	31	31	31	31	31	31	31
Letters written, pages...	810	770	913	905	726	769	691	753	674	721	926	952
Claims.....	129	129	129	129	129	129	129	129	129	129	129	129
Bonds	3	8	4	6	7	2	6	9	3	2	1	4
Sanitary reports.....	60	60	60	60	60	60	60	60	60	60	60	60
Miscellaneous letters....	15	33	17	25	30	4	9	6	8	18	29	10
Acknowledgment of accounts	28	55	23	36	51	15	33	44	29	29	49	22
Notifying Auditor of receipt of accounts.....	28	55	23	36	51	15	33	44	29	29	49	22
Notifying Comptroller of condition of accounts..	28	55	23	36	51	15	33	44	29	29	49	22
Commissions acted upon.	2	1	4	1	2	1	9	1	2	3	1	7
1885.												
Accounts, quarters.....	53	49	33	41	44	44	31	25	30	50	34	50
Explanations to accounts, sets.....	34	34	34	34	34	34	34	34	34	34	34	34
Letters written, pages...	1,162	854	1,043	1,321	1,130	1,089	1,357	1,341	1,686	1,422	1,055	1,379
Claims.....	211	211	211	211	211	211	211	211	211	211	211	211
Bonds	1	4	4	2	1	10	13	7	8	3	9	9
Sanitary reports.....	65	65	65	65	65	65	65	65	65	65	65	65
Miscellaneous letters....	10	20	31	15	19	21	10	42	23	9	19	5
Acknowledgment of accounts	25	58	26	39	60	7	30	69	9	41	64	7
Notifying Auditor of receipt of accounts.....	25	58	26	39	60	7	30	69	9	41	64	7
Notifying Comptroller of condition of accounts..	25	58	26	39	60	7	30	69	9	41	64	7
Commissions acted upon.	1	2	1	1	1	8	17	9	11	7	6	2

Character of business.	Average amount transacted during each month.											
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1886.												
Accounts, quarters	63	35	24	24	41	31	43	21	22	24	23	57
Explanations to accounts, sets	38	38	38	38	38	38	38	38	38	38	38	38
Letters written, pages . . .	1,432	1,361	1,575	2,079	1,719	1,605	1,255	1,441	1,345	1,502	1,023	1,231
Claims	246	246	246	246	462	246	246	246	246	246	246	246
Bonds	2	3	5	8	5	9	16	10	10	4	4	4
Sanitary reports	66	66	66	66	66	66	66	66	66	66	66	66
Miscellaneous letters . . .	10	10	30	13	26	18	11	59	18	20	23	12
Acknowledgment of accounts	26	53	27	38	54	11	37	63	9	44	46	32
Notifying Auditor of receipt of accounts	26	53	27	38	54	11	37	63	9	44	46	32
Notifying Comptroller of condition of accounts . .	26	53	27	38	54	11	37	63	9	44	46	32
Commissions acted upon . .	4	4	5	10	2	4	5	20	1	4	2	1
1887.												
Accounts, quarters	35	52	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Explanations to accounts, sets	38½	38½	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Letters written, pages . . .	1,611	1,133	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Claims	358	358	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bonds	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sanitary reports	83	83	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous letters . . .	32	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Acknowledgment of accounts	41	49	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Notifying Auditor of receipt of accounts	41	49	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Notifying Comptroller of condition of accounts . .	41	49	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Commissions acted upon . .	1	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Accounts.—As hereinbefore stated, these accounts are not uniform in size, some of them containing but ten or fifteen papers, while others contain as many as five hundred, or even more, every one of which requires careful examination as to every item appearing thereon.

In this item of accounts is included, in addition to the examination, the posting of each account by the book-keeper.

Explanations to accounts.—The same thing may be said as to these explanations as was said in regard to accounts; they are reported in sets, some of which contain answers to but a few suspensions, while others contain answers to very many suspensions, covering many quarters of accounts.

Letters written.—In making report of pages of letters written, it is found that the mail of the division was written with pen and ink up to October, 1884, inclusive, and after that time upon the type-writer, and as one page of the type-writer makes one and three-fourths pages of pen and ink, as verified by actual count, 75 per cent. has been added since October, 1884, to the number of pages actually appearing in the press-copy books.

Claims.—This item represents the number of claims entered in the property book of the division.

Bonds.—Represents the number of bonds of disbursing officers received, examined, approved, entered in the bond book, and forwarded to the Second Comptroller of the Treasury.

Sanitary reports.—Represents the number received, examined, and entered on the record of sanitary statistics.

Miscellaneous letters.—Includes letters notifying officers of failure to send accounts, reports, vouchers, &c., in time required by law or regulation.

Commissions acted upon.—This represents the number of commissions received and upon which instructions have been issued, blanks sent per preparation of bonds, &c.

ADDENDA.

The foregoing tables and explanatory notes represent, partially at least, the work performed by the accounts division for the period embraced in said tables, but it is impossible to convey in a report, either by figures or explanation, the entire amount of work done. Much of the work in connection with the examination of accounts,

tracing through old rolls the rights of individual Indians to share in annuities, considering reports of boards of survey, examining explanations to accounts, &c., is of such a nature that it cannot be represented on paper.

In addition to this class of work there has been a large amount of miscellaneous copying performed by this division, which is estimated to have amounted to at least 15,000 pages per annum. During the past six weeks an account has been kept of this kind of work, and it has amounted to 2,144 pages, an average of over 357 pages per week, or at the rate of 18,681 pages per annum.

The following statement shows the average number of employés in the accounts division of the Indian Office, Department of the Interior, during the periods specified :

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	21 20.6	21 20.	21 20.4	20 19.6	20 18.4	20 16.8	20 18.4	20 13.8	20 18.7	20 17.3	20 16.7	20 15.8
1885.....	21 20.3	21 19.	21 19.	20 19.3	20 19.	20 18.6	20 16.4	20 15.5	20 15.9	20 18.8	20 17.5	20 17.
1886.....	20 18.5	20 18.5	20 18.7	17 16.4	17 16.6	17 16.4	17 15.3	17 14.5	17 12.7	17 14.	17 13.5	17 14.5
1887 (to March 1).....	17 16.2	17 16.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The upper figures opposite each year indicate the number actually on the roll; the lower figures the average number at desk.

The difference is the result of special details, annual leaves, sick leaves, and assignments temporarily to other divisions.

Statement showing the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified, in the accounts division of the Indian Office, Department of the Interior.

No account of the business performed by each of the employés has been kept, for the reason that the work of the division is so diversified that it would be impracticable to make any comparison by taking the number of accounts, letters, explanations, or other papers disposed of. Even in the same kind of work, as the examination of the accounts of Indian agents, the accounts of various agents are as different as it is possible to imagine—some containing 10 or 12 papers and others containing 200 and 300, and even more. Not only is this true as regards different agent's accounts, but even in the examination of the accounts of the same agency they will vary, and that very materially, in different quarters of the year, and it would be impossible to make any comparison between the different examiners upon the basis of work performed, except by taking all the accounts examined and re-examine them in order to see the amount of work involved in each. It is the duty, however, of the chief of the division to exercise a proper oversight over the clerks under him and see that they are rendering to the Government an equivalent for the compensation paid them, and in case of those not doing so, to report them to the head of the Bureau for dereliction of duty.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the accounts division of the Indian Office, Department of the Interior :

Calendar year.	Number of employés.	Average number of days present.	Average number of hours employed daily.
1884.....	20.25	275.2	6.5
1885.....	20.25	276.5	6.5
1886.....	17.75	277.7	6.5
1887 (to March 1).....	17	47.6	6.5

In making up this statement the Sundays, legal holidays, and days the Department was closed by special order have been deducted as well as the half hour for lunch, and no account taken of work performed before 9 a. m. or after 4 p. m.

The following statement shows the maximum number of days devoted to business by the employes present for the greatest number of days, and also the minimum number of days devoted to business by the employes present for the least number of days in the accounts division of the Indian Office, Department of the Interior, during the periods specified :

	1884.	1885.	1886.	1887. (To Mar. 1.)
Maximum number of days.....	301.25	300.	305	48
Minimum number of days.....	239.50	229.	209.50	40.50

The clerk working the minimum number of days in 1886 has had deducted all time absent from the office, which includes 50 *days without pay*.

FINANCE DIVISION.

Report of the finance division, Indian Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the finance division of the Indian Office, Department of the Interior.

- (1) Settlement of all claims for goods and supplies purchased by the Indian Office.
- (2) Settlement of all claims for goods and supplies transported under contracts.
- (3) Settlement of all claims for services rendered in educating Indians under contract or by special appropriations made by Congress.
- (4) Settlement of all claims growing out of trust funds and sale of trust lands.
- (5) Settlement of claims of whatever nature for purchases made and services rendered, in addition to those already enumerated above, where payment is not made by a bonded disbursing agent.
- (6) Making of contracts for all goods and supplies purchased direct by the Indian Office, and examination and approval of all other contracts made by subordinate officers.
- (7) Recording of all contracts, including those made for education of children, excepting only those made between Indians with whites under section 2103 Revised Statutes.
- (8) Issuing of all requisitions in payment of claims against the Indian Bureau.
- (9) Issuing of all requisitions for advances made to disbursing officers.
- (10) Issuing of all requisitions covering funds in the Treasury.
- (11) Recording of all financial transactions of the Indian Bureau in ledgers under each head of appropriation and the different subheads.
- (12) Preparation of estimates to Congress for all funds required under treaty or otherwise for the Indian service.
- (13) Preparation of all estimates for the purchase of all goods and supplies for the Indian service at the annual letting.
- (14) Examination of all estimates for expenditures submitted by subordinate officers, whether for the erection of buildings or for the purchase of supplies, &c.
- (15) Preparation of all advertisements required to be published in the purchase of supplies, the erection of buildings, &c.
- (16) Preparation of annual statement for Congress of receipts and disbursements for the Indian service.
- (17) Preparation of statement of liabilities to Indian tribes required for annual report of Secretary of the Treasury.
- (18) Preparation of statement for annual report of Commissioner of Indian Affairs on account of trust funds and trust lands.
- (19) Preparation of contract tables, giving in detail each and every bid received for goods and supplies for the Indian service during each fiscal year, as required by law.
- (20) Recording of all property purchased and paid for through the Indian Office and not by disbursing agents.
- (21) Miscellaneous items of business too numerous to mention.

Statement showing in detail the methods of transacting business in the finance division of the Indian office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the Indian Office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

This division has charge of all financial affairs pertaining to the Indian service; acts upon all questions relating to contracts for supplies and annuity goods for Indians, and for the transportation of the same; settles all accounts for goods, supplies, &c., and makes payment for the same; remits funds to the disbursing officers of the Bureau, and conducts all correspondence relating to goods, supplies, &c., and the financial affairs generally of the Indian Office.

In treating of the manner and methods of conducting the "financial" branch of the Bureau, it is deemed proper and expedient, both for convenience and in order that the matters hereinafter set forth may be clearly understood, to make the following classification, viz:

- (1) Purchase of supplies, &c.
- (2) Settlement of claims or accounts arising under contracts or by open market transactions.
- (3) Remittances to disbursing officers of the Bureau.
- (4) Records of appropriations and expenditures, contracts, &c.

PURCHASE OF SUPPLIES, ETC.

Formerly large discretion was exercised by the Bureau in its purchases for the Indian service, and purchases were frequently made under the "exigency" clause, which did not limit transactions of that character to any specific sum. The act of Congress approved March 3, 1875, provided that hereafter no purchases of goods, supplies, &c., the cost of which exceeds \$1,000 should be made except after previous advertisement and contract therefor. By the act of August 15, 1876, the open-market limit was increased to \$2,000 in the case of an emergency, and by the act of March 3, 1877, this discretion was further extended so as to permit of purchases in open market to an amount not in excess of \$500, and in the case of an exigency to an amount not exceeding \$3,000. This law has been re-enacted from year to year, and by act of May 15, 1886, authority was also granted to purchase from Indians in open market to an amount not exceeding \$3,000, and to expend all funds appropriated for construction of ditches and other works for irrigating, in the discretion of the Secretary of the Interior, in open market.

The following is the method of letting contracts for the Indian service:

After due advertisement, upon authority previously obtained from the honorable the Secretary of the Interior, as required by law, inviting proposals to furnish annuity goods, supplies, &c., the quantities to be furnished being based upon estimates previously submitted by the various agents of the Indian service, the needs of the Indians and schools, existing treaty stipulations, and amount of money provided by Congress available for the purpose, sealed bids, in all cases when practicable accompanied by samples of the articles proposed to be furnished, are received and deposited until the time specified for opening of bids. At the proper time the box in which the bids are deposited is opened in the presence of the Commissioner of Indian Affairs, a representative of the Interior Department designated by the honorable the Secretary of the Interior, such members of the Board of Indian Commissioners as desire to be present, and a large number of interested persons. The bids are taken from the box one at a time, and read publicly by some member of the Board of Indian Commissioners, thence they are passed to clerks to be numbered, recorded, and abstracted, after which the officers named, with the abstracts of bids and the samples before them (said samples being divested of all marks that could reveal ownership, and having already been subjected to the scrutiny of competent inspectors, experts selected for their technical knowledge of the various kinds of goods offered, appointed for the purpose *after* the bids are opened), make the awards of contract. The abstracts of proposals submitted to the Commissioner of Indian Affairs and other persons making the awards do not have the names of the bidders, but only the number of the bids.

After the awards have been made contracts are prepared for execution by the successful bidders, which contracts, after receiving the signature of the Commissioner of Indian Affairs, with the necessary bonds for the faithful performance thereof, are forwarded to the Secretary of the Interior for his approval, thence they are returned to this office for record, after which they are passed to the office of the Second Comptroller of the Treasury for files. All contracts made by the Indian Office are exe-

cuted in quadruplicate; the original, after approval by the Secretary of the Interior, is filed as stated above; one copy is transmitted to the Second Auditor of the Treasury for his information as required by act of March 3, 1875; one copy is sent to the contractor, and one filed in the "returns office" of the Interior Department as required by law.

As soon as possible after the approval of the contract by the proper authorities, and the execution of a bond with proper sureties, shipments of goods, supplies, &c., are ordered. Sugar, coffee, flour, corn, &c., which are purchased in large quantities and usually at points remote from the place of making contracts, are inspected before shipment, by competent persons appointed for that purpose, by comparison with the samples upon which the contracts were awarded; in all cases a strict compliance with the terms of the contract as to the quality, &c., is required of contractors. In the case of annuity goods, clothing, blankets, and other articles, which are in most cases deliverable by contractors in New York City, Chicago, and Saint Louis, the contractors are required to deliver said articles either at the warehouse in New York or at some place designated in Chicago, Saint Louis, &c., where they are inspected by reputable experts, appointed for that duty, by comparison with the samples upon which the awards were made and the quantities are carefully compared with the invoices. If any of the articles offered for delivery fail to conform to or equal said samples, the same are rejected and the contractor is required to furnish proper articles within five days after the rejection; failing in this, the office has the right to purchase proper articles at the expense of the contractor. If, however, the articles offered and not up to sample are required for immediate use by the Indian Bureau, it has the right to accept the same subject to the inspection and test of a competent inspector to be designated by the Bureau, who determines the percentage of value less than the samples upon which the awards were made, and upon whose finding a deduction *twice* greater than the difference in value between the articles offered and the samples is made from the price agreed to be paid.

To insure greater security in the delivery at the agencies of the goods purchased and shipped, each package is stamped by the inspector with his name and is given a number which must correspond with a number on the invoice of the articles furnished. A copy of this invoice is forwarded by the first mail after shipment of the goods to the agent for whom they are intended, in order that he may compare quantities, &c., of articles received with the articles invoiced.

The above arrangements in detail in the matter of awarding contracts and the inspection and shipment of goods received thereunder, serve to protect the Department from both fraud and error, and great care is taken to insure the delivery at the agencies of the goods intended for them.

SETTLEMENT OF CLAIMS OR ACCOUNTS.

Within the last ten years great improvement has been made in the manner of the settlement and payment of accounts for goods, supplies, services, &c. Prior to July 1, 1876, payments of this class of claims or accounts were made by the superintendents and Indian agents, except for goods, &c., purchased at the annual letting of contracts, which covered only a portion of the yearly purchases. About the commencement of the fiscal year 1877 the system of making payment through the Indian Office for all goods, &c., was adopted, excepting in isolated cases, where the interests of the service were better subserved by direct payment through the agents. In payment for supplies furnished under contract, excepting for articles deliverable at agencies by contractors, each contractor must furnish invoices in quadruplicate of the articles delivered, two of which must have on the back the certificate of the inspector to the effect that the articles enumerated thereon (describing the packages by numbers and marks) are equal in quality to the samples upon which the contract was awarded, and he must also furnish the receipt of the transportation contractor for the packages covered by said invoices, describing the same by number and weight. Upon presentation of these invoices the contractor's account is adjusted by the Indian Office, the quantities and prices of articles being compared by the examining clerk with the records of the original contract; if found correct, the same is "jacketed" and submitted to the financial clerk for his initials and to the Commissioner for his signature; after receiving which, it goes to the bookkeeper to take a memorandum of the amount of the different appropriations to be charged and is then recorded in the "special accounts" records. A notice is mailed to the claimant or his attorney of the action by the Indian Office on the accounts and it is passed to the Second Auditor of the Treasury for settlement, by whom it is forwarded, with his findings thereon, to the Second Comptroller of the Treasury for examination, who certifies the balance due and upon whose certificate a requisition on the Secretary of the Interior for said balance due is issued by this office, who, in turn, makes requisition on the Secretary of the Treasury for the amount of the said account.

In the case of deliveries by contractors at agencies, other forms are used, as follows: "Receipt" of agent; "Certificate" of inspector; and "Weigher's return;" upon which, properly filled out and signed by the receiving, inspecting, and weighing officers, payment is made as hereinbefore described.

Payments for articles purchased in "open market" by agents of the Bureau are made after the manner before set forth, upon certified vouchers in duplicate, accompanied by duplicate invoices and transporters' receipts, where articles purchased are not delivered by the seller at the agency.

By a rule of the Department agents of the Bureau are required to obtain authority from the head of the Department, through the Indian Office, before purchasing any supplies or incurring any expense for the Indian service, except in a case of absolute emergency or exigency, when the necessary articles may be purchased in *small quantities*; but in such case an explanation is required to accompany the vouchers presented for approval.

REMITTANCES TO DISBURSING OFFICERS.

Advances of public funds are made only to bonded officers of the Bureau and officers of the Army detailed for duty under the Indian Department, who are required to submit quarterly estimates of the amount necessary to conduct the service at the several agencies and schools within the period covered by their estimates. Funds for the payment of money annuities arising under treaty stipulations are remitted in the fall and spring of the year. In all other cases the sums advanced are limited to the amount actually required to pay the agents and employes, salaries, said amounts being based on the amount allowed for that purpose at the several agencies, by the Secretary of the Interior, in accordance with the law, a small amount necessary to pay traveling expenses of the agents and contingent expenses of their agencies, and, in some cases, the amount necessary to pay for supplies, the purchase of which by the agents has already been authorized by the Department.

RECORDS OF APPROPRIATIONS AND DISBURSEMENTS, CONTRACTS, ETC.

The system of accounting for moneys appropriated by Congress for the Indian Department is very rigid and complete. The records of appropriations under existing treaty obligations with Indians require the use of nine large ledgers, in which are kept full and complete accounts of all receipts and disbursements of public funds appropriated for the various tribes of Indians. These accounts include not only a record of moneys appropriated by Congress, but also of receipts and disbursements arising from interest collected on bonds held by the Government for the benefit of the Indian tribes and from the sale of Indian lands. There are nearly three hundred and fifty different titles of appropriations, each one distinct from the other, and which under the law can only be used for such expenditures, as the several treaties or existing law may provide in each case.

Copies of all requisitions issued for funds are kept in books prepared especially for that purpose, which show the amount drawn from the Treasury, to whom paid, and the character of the supplies furnished or services performed, or, if advances to disbursing officers, to whom and for what purpose.

Besides the foregoing the following records are kept in the finance division of the Indian Bureau: Of all contracts for the Indian service, whether for supplies, services, or otherwise; of all property, whether purchased under contract or in open market, when payment therefor is made through this office and the Treasury Department; of all accounts paid through the office and the Treasury; record in detail of all advances to disbursing officers, showing the appropriation from, and the objects for, which the funds are remitted, together with the amounts thereof; register of letters received for action by the division, and of all correspondence emanating from it.

Statement showing an item of business transacted in the finance division of the Indian Office, Department of the Interior.

Payment of a claim for beef-cattle delivered under contract at an Indian agency, showing the different steps taken to settle the claim and obtain payment.

On receipt of the beef-cattle by the Indian agent, he issues receipts, inspection certificates, and weigher's returns, in duplicate; the originals are given to the contractor and the duplicates mailed by the agent direct to the Indian Office. When the originals are received from the contractor, they are sent to the file room of this office, where they are "jacketed," and receive a number, say claims No. 31253, and are entered into the record of "claims received." When the duplicates are received they also are sent to the file room properly briefed, numbered, and entered into the

record of "letters received." The papers are sent to the "finance division," where the chief of division marks the name of the clerk who is to examine the claim, on the right-hand corner at the bottom of the "jacket," and they are entered in the division record of papers received, and the clerk is charged with the same and becomes responsible for them. For convenience, the different agencies are divided among three clerks in the finance division, to whom all claims are charged, and each examiner is responsible for the proper settlement of the claims of the agencies assigned to him.

After the receipt by the examining clerk of the original and duplicate receipts, inspection certificates, and weigher's returns, he examines the papers to convince himself that they are properly made out, that all the stipulations of the contract have been complied with, &c., and if he finds such to be a fact, he states an account as follows:

The United States to John Smith :

For 237 head of steers, weighing 220,410 pounds gross, delivered at Cheyenne and Arapaho Agency, I. T., January 5, 1887, under contract of May 22, 1886, as per receipts, inspection certificates, and weigher's returns herewith, at \$3.20 per 100 pounds..... \$7,053 12

Account stated in Indian Office.

A. BROWN,
Examiner.

The original papers issued by the agent, together with the above account, are put in a "jacket" indorsed as follows :

"The within account of John Smith for 237 head of steers, weighing 220,410 pounds gross, delivered at Cheyenne and Arapaho Agency, I. T., January 5, 1887, under contract of May 22, 1886, amounting to \$7,053.12, has been examined and allowed for the sum claimed and is forwarded to the Second Auditor of the Treasury for settlement, charging appropriation. Support of Arapahoes, Cheyennes, Apaches, Kiowas, Comanches, and Wichitas, 1887, \$7,053.12."

Payment to be made to claimant, Saint Louis, Mo., and property to be charged to Agent Williams.

(Signed)

J. D. C. ATKINS,
Commissioner.

A. BROWN, *Examiner.*

Before the jacket is sent for signature to the Commissioner it is handed to the financial clerk, who gives the papers a cursory examination and sees that the appropriation charged is proper. After which he initials the same on the left hand upper corner and sends it to the room of the Assistant Commissioner, who also initials the same and passes it to the Commissioner for signature.

The duplicate papers are stamped with the word "settled" and the date, put in the jacket in which the originals were formerly, and on the outside "To Auditor" and date are written, after which they are given to the clerk in charge of the division records, who sends claimant a notice of the allowance of his claim by the Indian Office, and then passes the papers to the clerk in charge of the records of property purchased, who makes the proper entries on his bonds, charging the beef to the agent receiving it, and returns the papers to the clerk in charge of the division records, who enters the action had on the record and returns the jacket containing the duplicates to the file-room of the office for file.

The jacket containing the original papers, after receiving the signature of the head of the Bureau, is passed to the book-keeper of the finance division, who takes a memorandum of the name and amount of the claim and the appropriation to be charged and sends it to the clerk in charge of the "Records of special accounts," who copies, in a book prepared especially for that purpose, the indorsement on the jacket as stated above, exactly and word for word as it is signed by the head of the Bureau, notes the dates on which it is sent to the Second Auditor of the Treasury and sends it there by messenger.

The papers under the law are examined in that office and a settlement stated and transmitted to the Second Comptroller of the Treasury, who examines the same and certifies the balance due, which balance, under section 191 Revised Statutes, is binding on the Executive Departments of the Government. The settlement as certified to by the Second Comptroller is transmitted to the Indian Office, where a requisition for the amount certified to is issued on the Secretary of the Interior, copied on the records of the finance division, and the proper entry made on the ledgers of the division. The requisition is examined and initialed by the financial clerk and the Assistant Commissioner, and signed by the head of the Bureau, and passed to the Secretary of the Interior, who issues a requisition on the Secretary of the Treasury for the amount

due. This requisition is countersigned by the Second Comptroller of the Treasury, and registered by the Second Auditor of the Treasury, and then goes to the Secretary of the Treasury for warrant. The warrant issued is signed by the Assistant Secretary of the Treasury designated for that purpose, countersigned by the First Comptroller of the Treasury, and registered by the Register of the Treasury, thence it goes to the Treasurer of the United States for draft, which is sent to the claimant.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the finance division of the Indian Office, Department of Interior :

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Letters	875	12, 104	12, 592	387	13, 146	12, 775	758	17, 640	17, 654	744	2, 715	2, 183	1, 276
Claims	220	3, 550	3, 660	110	3, 963	3, 975	98	4, 551	4, 376	273	663	569	367

NOTE.—In explanation of the large number of letters on hand undisposed of on March 1, 1887, it is stated that all annual estimates for the next fiscal year are received during January of each year, but are not disposed of until in May or June of the year.

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employes in the finance division of the Indian Office, Department of the Interior :

Character of business.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.												
Letters written and mailed	538	666	737	685	685	569	1, 137	973	663	522	428	650
Claims settled	206	154	130	137	201	196	209	169	322	458	252	322
Notices mailed to claimants	211	161	137	148	206	193	205	76	335	461	268	337
Statement of funds issued and mailed	23	46	35	31	47	22	30	17	70	20	35	45
Pay requisitions issued	259	194	160	141	232	118	502	202	333	357	223	330
Refunding requisitions issued	39	10	67	17	17	31	24	9	64	40	23	17
Contracts made and acted upon	11	5	13	1	13	4	156	44	11	8	12	10
1885.												
Letters written and mailed	599	489	638	557	385	764	634	737	498	577	609	633
Claims settled	250	123	160	175	158	131	155	228	206	540	381	320
Notices mailed to claimants	262	130	163	183	164	142	167	228	306	614	427	355
Statements of funds issued and mailed	24	33	46	40	3	52	21	48	37	18	36	36
Pay requisitions issued	318	195	267	214	233	138	234	223	274	321	375	259
Refunding requisitions issued	55	16	25	50	16	11	62	40	49	30	22	17
Contracts made and acted upon	6	28	26	10	26	154	39	32	12	15	2	6
1886.												
Letters written and mailed	576	699	859	840	739	926	891	728	726	860	568	790
Claims settled	207	144	214	179	150	175	227	321	582	419	385	285
Notices mailed to claimants	222	156	231	180	153	184	231	300	550	431	410	308
Statements of funds issued and mailed	18	41	37	21	37	20	33	33	49	25	49	37
Pay requisitions issued	266	207	191	260	198	193	296	354	353	392	367	347
Refunding requisitions issued	40	57	11	77	31	36	53	15	42	40	46	16
Contracts made and acted upon	25	4	26	21	3	172	48	73	18	12	20	23

Character of business.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1887.												
Letters written and mailed.....	588	691	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Claims settled.....	230	241	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Notices mailed to claimants.....	261	252	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Statements of funds issued and mailed.....	23	37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pay requisitions issued.....	288	317	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Refunding requisitions issued.....	65	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Contracts made and acted upon.....	9	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the average number of employes in the finance division of the Indian Office, Department of the Interior, during the periods specified:

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	13	13	13	13	13	13	13	13	14	14	14	14
1885.....	14	14	14	14	14	14	14	14	14	14	14	14
1886.....	14	14	14	14	14	14	15	15	15	15	15	15
1887 (to March 1).....	14	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Statement showing the maximum and minimum amount of business transacted and disposed of by the employe doing the most and the employe doing the least during the periods specified, in the finance division of the Indian Office, Department of the Interior.

No account has been kept of the business performed and disposed of by each employe. The work of the division is so diversified that it is impossible to keep an account. The chief of division sees to it that each employe does his or her share of the work of the division.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employes in the finance division of the Indian Office, Department of the Interior:

Calendar year.	Number of employes.	Average number of days present.	Average number of hours employed daily.
1884.....	13½	275½	7
1885.....	14	271	7
1886.....	14½	278	7
1887 (to March 1).....	14	47	7

The following statement shows the maximum number of days devoted to business by the employe present for the greatest number of days, and also the minimum number of days devoted to business by the employe present for the least number of days, in the finance division of the Indian Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to Mar. 1).
Maximum number of days.....	306	297	304	48
Minimum number of days.....	213	234	258½	43

The number of days, during which the Department was open for the transaction of official business, is as follows:

	Days.
1884	307
1885	301½
1886	305
1887, up to March 1	48

In addition to the above, the financial clerk has devoted nearly all Sundays and most of the evenings to the transaction of official business.

FILES AND RECORDS DIVISION.

Report of the files and records division, Indian Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the files and records division of the Indian Office, Department of the Interior.

The business of this division is to brief, register, index, and file all official documents received in the Indian Office; and to "abstract" (*i. e.*, to record a brief) index, and copy into permanent registers all official communications sent from the office.

Statement showing in detail the methods of transacting business in the files and records division of the Indian Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the Indian Office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each until the same is finally disposed of and notice thereof duly given to the proper party.

The mail when received is opened in the office of the honorable Assistant Commissioner, and each piece is marked by him or his representative, for the time being, with the initial letter of the division which shall act administratively on the same. It is then sent to the files and records division, where it is properly briefed, stamped with a stamp bearing the name of this office, and the date of its receipt; then each piece receives a distinctive number (which number it forever retains); then the letter is thoroughly indexed as to names of writer, persons mentioned, and the subject; it is then (the brief of it) recorded, or registered, in a proper book, the division to which it is charged being noted on said register, as well as the number; and then it goes to the division to which it is charged for appropriate administrative action; and finally, after it has filled its mission, is returned to this division, where it undergoes the final action taken upon it, unless called up by subsequent developments. This final action is to note on the register opposite the original entry, what action was had on it in the division to which it was sent, and then it is filed away in proper receptacles convenient for future reference.

Of these letters received we have four classes.

- (1) Ordinary letters.
- (2) Claims and contract letters.
- (3) Authority letters.
- (4) Miscellaneous reports (purely routine in nature).

The first class embraces all official communications from whomsoever and on all subjects.

The second class comprises only letters containing claims against and contracts with the United States. (Note: The exception to this being claims of citizens on account of depredations by Indians, claims for improvements by squatters on Indian reservations, claims for damages, and kindred claims.)

The third class are letters from the honorable the Secretary of the Interior alone, authorizing this office to perform certain acts, to make purchases, to employ labor, to grant surveys, to remove intruders, &c.

The fourth class is composed of certain routine reports required by the regulations of this office and the United States Treasury from its agents, and are, viz:

- (1) Weekly statements of public funds.
 - (2) Monthly statements of public funds.
 - (3) Weekly supply reports.
 - (4) Statement of issues to Indians.
- This class of mail is, for convenience, recorded but once a week, on Saturday.

Every morning the various divisions of the office send to this division "rough drafts" or memorandums, of the letters that have been written and sent from their respective divisions the previous day.

These "roughs" undergo something of a similar treatment to that of the letters received, above described. They are conveniently arranged and each stamped with a number. Then a brief, or "abstract," of them is recorded in a proper record book, and thoroughly indexed; and the roughs preserved until they shall have been completely copied in permanent record books prescribed for the purpose; then, opposite the brief, or "abstract," the number and page of the said record is noted and the rough itself destroyed. (Note: Comparison as to correctness is made from the press copy.)

This division keeps books, as follows:

- (1) Record of letters received.
- (2) Record of claims and contracts received.
- (3) Record of authorities received.
- (4) Record of miscellaneous reports received.
- (5) Record of letters sent (abstract).
- (6) Record of letters sent to Secretary of the Interior (full copy).
- (7) Record of letters sent to other persons (full copy).
- (8) Index to letters received.
- (9) Index to claims, &c., received.
- (10) Index to authorities received.
- (11) Index to letters sent.

Besides, for convenience, several auxiliary books, such as special record of reports of Indian inspectors, containing all reports up to December 31, 1880; special file-book, containing memorandum of special files; that is, where many papers have been received in a case running for a number of years and no final disposition could be made of it, then the papers would be kept together in a "special file" until the matter was finally disposed of. After final disposition these papers find their way to the places where they properly belong.

In indexing papers the card-index system has been adopted. Each card represents a name or a subject, with the number of the letter to which it refers.

Every few days these cards are separated—first, in alphabetical order, and second, in combinations of the second letter. They are arranged in convenient order for searching purposes, and transferred to the permanent index-books as rapidly as possible.

The work of this division is purely initiative but not administrative.

The following statement shows the amount and character of business received, transacted, and disposed of during the period and on hand, pending, and undisposed of at the dates specified below in the files and records division of the Indian Office, Department of the Interior:

Character of business.	Pending Jan. 1, 1884.	During year 1884.	Transacted and disposed of in 1884.	Pending Jan. 1, 1885.	During year 1885.	Transacted and disposed of in 1885.	During year 1886.	Transacted and disposed of in 1886.	Up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.
Letters received		24,956			31,188		34,621		5,583	
Claims received		3,531			3,963		4,556		467	
Authorities received		2,379			2,504		2,660		407	
Miscellaneous reports received		6,596	37,462		7,321	44,976	7,320	49,157	1,141	7,598
Letters sent		17,400	17,400		20,123	20,123	23,927		3,842	
Recording of letters sent in permanent records	9,750	17,400		27,150	20,143		23,927	23,927	3,842	3,842
Letters disposed of from January 1, 1884, to March 1, 1887.....										5,500
Approximate amount on hand and undisposed of March 1, 1887.....										69,562

* It is impossible to even approximate, with any accuracy, the amount of this class of work performed in any year since January 1, 1884; but the above statement will show quite correctly (approximated) the amount done from January 1, 1884, to March 1, 1887.

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employés in the files and records division of the Indian Office, Department of the Interior :

Character of business.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.												
Letters received.....	2,149	1,912	2,172	2,089	2,096	1,838	2,227	2,102	2,154	2,176	1,951	2,090
Claims received.....	213	132	148	164	226	245	356	278	457	774	282	236
Authorities received.....	200	203	194	192	194	172	219	213	241	182	161	208
Miscellaneous reports received.....	485	657	529	480	617	482	602	443	552	647	558	545
Letters sent.....	1,538	1,421	1,509	1,552	1,414	1,348	1,559	1,399	1,498	1,409	1,178	1,575
1885.												
Letters received.....	2,050	2,211	2,371	2,922	2,459	2,405	2,984	2,730	2,721	2,839	2,722	2,774
Claims received.....	225	176	177	236	203	286	201	415	655	683	369	337
Authorities received.....	211	219	236	235	191	182	228	231	167	225	189	190
Miscellaneous reports received.....	621	542	466	638	714	484	502	694	583	672	659	746
Letters sent.....	1,629	1,384	1,674	1,837	1,362	1,505	1,975	1,668	1,831	1,816	1,465	1,977
1886.												
Letters received.....	3,152	3,013	2,794	2,709	2,683	2,753	3,193	2,849	2,936	2,997	2,677	2,865
Claims received.....	225	156	200	207	246	389	274	468	800	730	436	425
Authorities received.....	185	220	245	268	195	158	240	220	198	312	188	231
Miscellaneous reports received.....	552	552	722	511	646	557	637	602	551	687	578	725
Letters sent.....	2,266	1,866	2,068	2,226	1,926	1,885	1,907	1,912	1,981	2,249	1,663	1,978
1887.												
Letters received.....	2,982	2,601	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Claims received.....	278	189	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Authorities received.....	217	190	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous reports received.....	571	570	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Letters sent.....	2,098	1,750	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the average number of employés in the files and records division of the Indian Office, Department of the Interior, during the periods specified :

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	6.6	6.6	6.9	6.6	5.7	6.5	5.7	7.4	8.6	8.8	9.6	7.8
1885.....	7.3	7.2	6.7	7.3	7.8	7.7	7.8	6.2	5.6	6.3	6.8	5.4
1886.....	6.7	6.9	6.4	6.9	6.4	6.0	6.2	5.6	5.6	6.6	8.9	8.5
1887 (to March 1).....	6.4	5.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Statement showing the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified, in the files and records division of the Indian Office, Department of the Interior.

It is utterly impossible to answer this. No time of individual work has been kept, and it would be impracticable to do so. While each clerk has a particular desk and line of work assigned, it often happens that the entire force of the division is engaged on the same piece of work ; and besides, the work of each desk is so interwoven with that of another that to disentangle it would be impossible.

A personal examination would soon convince a skeptic of this statement.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the files and records division in the Indian Office, Department of the Interior :

Calendar year.	Number of employés.	Average number of days present.	Average Number of hours employ'd daily.
1884.....	7 $\frac{7}{10}$	264.2	6.02
1885.....	7 $\frac{3}{3}$	270.3	6.16
1886.....	7 $\frac{3}{3}$	275.8	6.29
1887 (to March 1).....	7	46.7	6.56

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the files and records division of the Indian Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to March 1).
Maximum number of days	276 $\frac{1}{2}$	289 $\frac{1}{2}$	295 $\frac{3}{4}$	48
Minimum number of days	253 $\frac{2}{7}$	253 $\frac{2}{7}$	236 $\frac{3}{4}$	44 $\frac{2}{7}$

LAND AND LAW DIVISION.

Report of the land and law division, Indian Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

A statistical statement of the work performed by the land and law division of the Indian Office will be found appended hereto.

The responsible, intricate, and complex character of the duties of this division render it almost impossible to give even an approximate estimate of the amount or an idea of the varied nature and character of the work performed by its clerical force.

All questions relating to Indian lands are subjects for the determination of this division, many of which require an examination of the official records back for forty and sixty years; in some cases as far back as the earliest treaties made by the Government with various Indian tribes, and even back to treaties made between the colonies and the Indians.

All questions of law involved in the management and civilization of the Indians are considered and determined here, such as their lands; their internal and external affairs; their legal attitude and status among themselves, or with reference to the whites; conflicts between the local laws and customs of a tribe and the State laws and between the State and Federal laws; questions of citizenship; guardianship; crimes; misdemeanors; jurisdiction; how far Indians are subject to their own laws and customs, and how far they are amenable to State and Federal law; intruders and trespassers; prosecution of persons guilty of the sale of whisky to Indians; taxation; water rights; right of way for railroads through reservations; cattle grazing; conveyances of land; contracts with Indians; sale of timber; allotments; patents; Executive orders establishing reservations; the construction of treaties and acts of Congress, and many other questions not necessary to enumerate here. Many of these questions require an examination of the decisions of the district, circuit, and Supreme Courts of the United States, and of the various State courts, as well as an examination of the various text-books and the application of the principles and rules laid down therein.

In addition to these, many other matters are constantly and necessarily arising in the transition of the Indian from the semi-civilized to the civilized state. As the Indian advances toward civilization he naturally arrives at a better understanding as to his rights, and when those rights are infringed or trespassed upon, he appeals to the Government for protection.

Numerous original bills and reports are prepared here and transmitted to Congress, and nearly every bill originating in either house of Congress relating to Indian lands or the status of the Indian is referred to this office for information and report, and the President seldom affixes his signature to a measure which has passed Congress relating to Indian matters without it first having been referred to this office for report.

No idea can be formed of the amount and character and the labor necessary to perform the work of this division without personal examination and inspection.

Some cases require days and sometimes weeks of record and legal research in compiling data necessary to the preparation of a single letter, many of which cover from twenty to one hundred pages. No record has been or can be kept of the amount and character of work performed by any employé. Hardly any of the correspondence is of a routine nature. Each subject is separate and distinct and must be considered and determined by the particular treaty or law within which it may come. Many cases require immediate action and the exercise of sound judgment and discretion. One employé may prepare several letters in a day, while another may prepare none, and the next day it may be *vice versa*.

A letter of a few lines may require several days to make proper answer.

I desire to call attention to the fact that all the work with which the civilization division of this Bureau was charged, except matters pertaining to licensed traders

and the examination and settlement of deprecation claims, was assigned to this division on September 1, 1885, since which time all that work, in addition to the regular work of the division, has been performed without additional clerical force.

The act recently passed, providing for the allotment of land in severalty to the Indians, will necessarily very largely increase the work of this division.

Land must be surveyed, field-notes and plats copied, allotments made, schedules prepared, tract-books opened, patents issued and recorded, with all the correspondence incident thereto.

Apart from the absorption of the civilization division a vast amount of additional labor has within the past few years been entailed on this division, owing to the rapid extension of the railroad system throughout the country and consequent construction of railroads through Indian reservations.

The act of Congress of March 3, 1875, granting to railroads the right of way through the public lands of the United States specially excepts from the operations of its provisions, *inter alia*, Indian reservations, unless the right of way shall have been provided for by treaty stipulation or by act of Congress theretofore passed.

Whenever, therefore, an application is made for a right of way through an Indian reservation—and such applications are getting to be quite numerous—reference has to be made to the treaty or other muniment of title under which the reservation was established, to ascertain its provisions (if any) in regard to railroads and the proper method, which varies with the different cases, to be adopted in regard to obtaining such right of way and compensating the Indians for the same.

From its inception down to the close a great amount of detail work is involved.

The case of the Milwaukee, Lake Shore and Western Railway, constructed on the La Pointe or Bad River Reservation in Wisconsin in 1884-'85 will serve as a practical illustration.

In this case the treaty provides for the building of roads across the reservation on terms of just compensation to the Indians.

This case went through the following successive steps :

First, the general solicitor of the company writes to this office for information as to the manner of procuring the right of way.

Application referred to this division; treaty examined; and inquiry made in General Land Office (railroad division) whether proofs of organization, &c., filed.

General solicitor of the company fully instructed by letter.

He writes to Department to inquire whether Congressional action is necessary.

Report to Secretary thereon, with information that general solicitor is already advised on the subject.

Member of Congress telegraphs making same inquiry.

Telegram to him in reply.

Application by company for authority to make preliminary survey on reservation.

Report to Secretary thereon with recommendations.

Department returns papers and grants authority.

Railway company notified thereof, and agent instructed to consult Indians.

Proofs of incorporation, &c., examined and filed.

Agent reports result of council with Indians.

Company notified to proceed with survey, and file maps, &c.

Company applies for leave to proceed with work of construction pending completion of survey, which is interrupted by unexpected topographical difficulties.

Report to Secretary recommending application be granted conditionally that company give bond of indemnity to secure compensation, &c.

Department concurs and directs bond to be taken.

Bond prepared and transmitted to railway company for execution.

Agent notified of action taken.

Agent reports Indians satisfied.

Agent applies for permission for Indians whose allotments are hitherto unapproved to cut and sell ties to railroad company.

Report to Secretary with favorable recommendation.

Department grants authority and agent instructed thereon.

Company files map of definite location and bond.

Papers examined and transmitted to Secretary for approval, with recommendation that agent be directed to take necessary measures to adjust question of compensation to Indians.

Department returns bond and map approved with instructions.

Letter to agent instructing him as to his duties.

Also to railway company advising it of action taken.

Agent reports result of negotiations with Indians collectively and individually in respect of compensation for right of way, transmits preliminary papers, &c.

Papers examined and reported to Secretary with recommendation for approval and authority to perfect negotiations on terms stipulated.

Preparing agreement in reference to general right of way through unallotted lands, and same transmitted to agent for signature by the Indians.

Company transmits draft for \$855.75, compensation agreed upon to Indians for general right of way.

Report to Secretary therewith, with recommendation for deposit in Treasury pending completion.

Department concurs and directs deposit.

Formal agreement with Indians received, examined, and submitted to Secretary for approval.

Agreement returned approved, and authority granted for payment of compensation to Indians *per capita*.

Draft transmitted to agent for amount, and instructions as to distribution.

Agent transmits deeds from individual owners.

Same examined and submitted to Secretary for approval of President, in compliance with terms of treaty.

Deeds returned approved by President, recorded in office books, and sent to the company who has previously settled with the individual Indians direct.

The above statement only presents the principal steps taken in the case, and no mention is made of much incidental correspondence which arose. The matter was pending over one year.

At first sight it would seem as if this was a very simple matter, but the foregoing outline of proceedings shows the amount of detail labor involved in one case alone.

Again, take the cases of the different railways now in course of construction in the Indian Territory. A glance at the acts under which they are being built will suffice to show the work necessary to carry out these acts, particularly the clauses having reference to compensation and the adjustment thereof. In the case of the Southern Kansas Railway alone, where the Indians dissented from the terms of the act, the detail work has been enormous already. So also in the case of the Gulf, Colorado and Santa Fé Railway, now being constructed through the Territory, with the prospect of equal labor in the Denison and Washita Valley, the Kansas and Arkansas Valley, the Kansas City, Fort Scott and Gulf, the Saint Louis and San Francisco, the Fort Worth and Denver City, and the Chicago, Kansas and Nebraska Railroads, all authorized by act of Congress to build in the Territory, and now pending before this division.

In the Western reservations, we have the Saint Paul, Minneapolis and Manitoba, the Utah Midland, the Maricopa and Phoenix, the Rocky Fork and Cooke City, the Utah and Northern, the Chicago, Milwaukee and Saint Paul, the Dakota Central, the Duluth, Superior and Michigan, and several other railroads in course of construction, all requiring more or less attention at successive steps, not to mention the Atlantic and Pacific and the Missouri, Kansas and Texas Railroad in the Indian Territory, with whom questions of damages to Indians are constantly arising.

At the present writing there are between thirty and forty railroad cases before this division in various stages of completion, and all involving a great amount of correspondence and detail work. In fact, the railroad business in connection with Indian reservations has increased of late years, and is of such a character as to almost occupy the time of one clerk exclusively to give it that attention which its importance to the Indians demands.

As another illustration I cite the following case :

Rev. C. C. Painter, secretary Indian Rights Association, informs this office that adjacent to the Coahuila Reservation, in California, there is a section of land within a railroad grant, which has always been occupied and used by the Indians for grazing purposes; that they are anxious to purchase the same, but cannot comply with the terms of the company; and that it is of the utmost importance that the Indians should have it, and hopes that something may be done at once to secure it to them.

Written inquiry is made of the General Land Office as to the legal status of the section in question. Land Office replies that it is within the 30-mile indemnity limit of the grant to the Southern Pacific Railroad Company, and appears on a list of selections made by the company, which list has not been acted upon.

Case reported to the Secretary, with the recommendation that the matter be laid before the proper officers of the company, to see if it would not relinquish the section to the Government for the use of the Indians, or make such terms as would enable the Indians to purchase it.

C. P. Huntington replies to a letter written to Senator Stanford by Department, in accordance with foregoing suggestions, stating that the company would be inclined to do what the Secretary desired in the matter.

Report is again made to the Secretary suggesting that if the company relinquishes this section, it can select another in lieu thereof.

Commissioner of the General Land Office reports that Southern Pacific Railroad Company, has filed a quit-claim deed to the section in question.

A draft of an Executive order setting apart said section as an addition to the Coahuila Reservation is then prepared and sent to the Department, with a report recommending that it be laid before the President for his signature.

Executive order is received and copies made and sent to the General Land Office, to the agent of the Mission Indians, and to Rev. Mr. Painter.

As an illustration of the labor involved in answering an apparently simple inquiry, I cite the following :

A gentleman engaged in some literary work writes a letter of about a dozen lines asking certain information relative to the Oneida, Stockbridge, and Brothertown Indians in Wisconsin.

A clerk searches the ancient files of the Office for more than two days, and prepares an answer which covers nearly five type-written pages.

There are kept in this division the following books and records, viz :

Register of letters received.

Subject index of letters received.

Subject index of letters sent.

Deed-books, where all deeds of conveyance of Indian lands are recorded.

Tract-books, wherein a record of all allotments to Indians is made.

Miscellaneous record wherein are recorded all contracts, agreements, &c., with Indians.

Record of timber contracts and bonds.

It will be observed by reference to the attached statistical statement that there has been a marked increase in the work of this division during the period covered by the request of the committee.

The increase for the year 1886 over that of 1884 is,

Number of letters received.....	71 per cent.
Number of letters sent.....	45 per cent.
Number of pages written.....	58 per cent.

Up to October, 1886, the draftsman of the Bureau was borne on the roll of employés of this division, but, owing to the peculiar character of the work performed by him, no account is taken thereof in the following statements.

Statement showing (1) the amount of business pending in the land division of the Indian Office, for the year ending January 1, 1884; (2) the amount of business received during the year 1884; (3) the amount of business transacted during the year 1884. Similar statistics respecting the years 1885 and 1886, and up to the 1st of March, 1887, as disclosed by the records of the office.

Business.	1884.	1885.	1886.
Number of letters pending in the division January 1.....	257	260	241
Number of letters and telegrams received in division during the year.....	2,823	3,669	4,851
Number of letters and telegrams prepared and sent out from the division during the year.....	1,951	2,318	2,827
<hr/>			
Number of letters pending in the division January 1, 1887.....			491
Number of letters pending in the division March 1, 1887.....			687
(Some of these letters have been partially acted upon, but not finally disposed of.)			
Number of letters and telegrams received in division during the year 1887.....			836
Number of letters and telegrams prepared and sent out from the division for the year up to March 1, 1887 (two months).....			475

	Year.	Pages by type-writer.	Written pages.
Letters prepared.....	1884	1,250	4,844
Do.....	1885	3,014	2,270
Do.....	1886	5,155	666
Do.....	1887	872	85

NOTE.—Many letters received in the division require no action, being answers to inquiries from the office, while others are transferred to other divisions, and in some cases answer to several letters is embraced in one, which will account for the difference in the number of letters received, the number written, and the number pending at the beginning of each year.

Allowing one page by type-writer as equal to two and a quarter written pages (a tested fact) the statement would be:

Year.	Letters.	Written pages.	Year.	Letters.	Written pages.
1884.....	1,951	7,657	1886.....	2,827	12,265
1885.....	2,318	9,051	1887.....	475	2,077

Comparative statement.

Number of letters received during the year 1885, 3,669; during the year 1884, 2,823; showing an increase of 30 per cent., or 846.

Number of letters received during the year 1886, 4,851; during the year 1885, 3,669; showing an increase of 31 9-10 per cent., or 1,182.

Number of letters prepared during the year 1885, 9,051 pages; during the year 1884, 7,657; showing an increase of 18 2-10 per cent., or 1,394.

Number of letters, &c., prepared during the year 1886, 12,265 pages; during the year 1885, 9,051; showing an increase of 35 1/2 per cent., or 3,214.

General summary showing per cent. of increase.

	1884.	1885.	1886.	1887.	Mar. 1, 1887.
Business pending January 1.....	257	260	241	491*	687*
Business received in the year.....	2,823	3,669	4,851	.....	836
Per cent. of increase.....	.....	30.	31.90	.....	.....
Letters, &c., prepared and sent out for the year.....	1,951	2,318	2,827	.....	475
Per cent. of increase.....	.....	18.50	21.90	.....	.....
Pages covered by letters written.....	7,657	9,051	12,265	.....	2,047
Per cent. of increase.....	.....	18.20	35.50	.....	.....

* Some of these letters have been partially acted upon, but not finally disposed of.

The following statement shows the average number of employes in the land division of the Indian Office, during each month in the years 1884, 1885, 1886, and 1887, up to March 1, 1887 :

Date.	1884.		1885.		1886.		1887.	
	On roll.	At desk.	On roll.	At desk.	On roll.	At desk.	On roll.	At desk.
January.....	15	14	14	13.3	13	12.5	12	9.75
February.....	15	14.5	14	13.2	13	12	12	10
March.....	15	14.3	14	13.6	14	13	.....	.....
April.....	14	13.5	14	13.6	13	12.5	.....	.....
May.....	14	13.6	14	12.5	13	11.7	.....	.....
June.....	14	13	14	12.2	13	12.2	.....	.....
July.....	14	11.8	15	12.6	13	11.5	.....	.....
August.....	14	11.5	15	11.5	13	10	.....	.....
September.....	14	12	15	12.7	13	8.6	.....	.....
October.....	14	11.3	14	12	12	9	.....	.....
November.....	14	12	14	12	13	11	.....	.....
December.....	14	12.5	14	13	13	11.2	.....	.....
General average.....	14.25	12.8	14.25	12.7	13	11.26	12	9.9

NOTE.—One clerk, C. F. Larrabee, detailed for special service in the field from July 16, 1885, to September 3, 1885, and from July 28, 1886, to March 1, 1887, is carried on roll in above statement, but not in column of "employes at desk."

The employes of the division consist of 1 chief, 4 corresponding clerks, 1 statistical and deed clerk, 1 draftsman (up to October last), 1 file clerk, 1 register clerk, 1 index clerk, 2 type-writers, and 1 copyist.

The following statement shows the maximum and minimum number of days during each of the years 1884, 1885, and 1886, and up to March 1, 1887, devoted to business by the employes in the land division of the Indian Office, present for the greatest number of days, and also for the least number of days :

	1884.	1885.	1886.	1887.*
Possible number of days.....	307	301½	305	48
Maximum number of days.....	300½	293	288	48
Minimum number of days.....	245½	230	250	23½

* Up to March 1.

Monthly statement of business prepared and sent out by land division, Indian Office.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Average.
1884 {	141	180	158	178	197	162	223	187	138	145	100	142	1,951	163
.....	769	700	649	850	615	583	852	648	588	443	328	632	7,657	638
1885 {	191	144	168	225	243	193	169	127	163	260	185	259	2,318	193
.....	676	580	551	787	941	927	796	448	608	982	769	986	9,051	754
1886 {	226	197	282	240	301	253	226	198	224	223	214	243	2,827	236
.....	974	901	1,293	1,377	1,311	1,013	987	986	849	936	756	879	12,265	1,022
1887 {	258	217	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	475	238
.....	1,085	962	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,047	1,024

NOTE.—The first line of figures opposite each year represents the number of letters prepared and sent out. The other line of figures represents the number of pages covered by said letters.

In conclusion, I desire to invite attention to the fact that the work incident to this division requires an immense amount of copying of which no account has been kept.

As an illustration three cases are cited, viz :

1st. Papers relating to the lands of the Black Bob Band of Shawnee Indians, 644 pages type-written matter.

2d. Report of the Northwest Indian Commission, 133 pages of printed matter.

3d. Testimony of Colonel Carrington, taken before a special commission in the spring of 1867, called for by Senate resolution of February 11, 1887, 146 pages of type-written matter.

I am enabled to give the number of pages in the cases of the Black Bob Shawnee Indians, and the testimony of Colonel Carrington, from the fact that copies were made in duplicate (manifold), one copy of each being retained in the division for future use.

EDUCATION DIVISION.

Report of the education division, Indian Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the education division of the Indian Office, Department of the Interior.

This division was organized September 1, 1885, and consisted of the chief of division, one clerk, and two copyists.

In March, 1886, an additional clerk was assigned to it, and since that time the force has consisted of the chief of division, two clerks, and two copyists.

The following is a general statement of the work of the division :

All communications regarding the establishment and management of Indian schools are considered and acted upon. In the performance of this duty the question of plans and specifications for the erection of new school buildings and repairs of those already erected must be decided upon; the requests from agents and superintendents of schools for authority to purchase supplies needed by the schools are considered, and the propriety of granting the authority is decided upon, and the question as to whether the condition of the appropriations available will warrant the expenditure is considered. The correspondence is necessarily of a miscellaneous character, covering as it does not only the expenditure of money but all questions that arise in the management of Indian schools.

To properly conduct the schools various employés, such as superintendents, teachers, seamstresses, cooks, laundresses, &c., and teachers of various industries are required. The number and salaries of these positions vary with the necessities of each school. The positions and salaries allowed for the schools are determined in this division, and in considering the matter the attendance, industries taught, cost of living, and the condition of the appropriations available must be taken into account.

Statistics of Indian schools are prepared in this division. These statistics give the name and location of all Indian schools, how they are supported, the school population, capacity and the number of employés at each school, the attendance, number of months in session, cost to the Government, and cost per capita per month. Also the names, positions, salaries, kind of service, salary per annum, and amount paid each employé at Indian schools conducted by the Government.

Contracts for educating Indian pupils are determined upon and the contracts prepared.

Quarterly reports of attendance at each school are examined and recorded.

Monthly reports of issues and expenditures on account of each school are analyzed and recorded.

Reports of inspectors and special agents on schools are recorded and suitable action taken on each case.

Statement showing in detail the methods of transacting business in the education division of the Indian Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

All papers received in the Indian Office which pertain in any manner to Indian schools are referred to this division. When they are received from the files division each letter is entered on a register, which shows the file number, date of receipt,

in the Indian Office, date of reception in the division, the party from whom received, and the subject of the letter. This register has columns in which the date of action and the nature of such action are entered after the letters have been disposed of. After the letters are entered they are read by the chief of division, who directs what action shall be taken, and if the action involves any expenditure of money for articles needed in the schools, or calls for supplies furnished under contract, the letter is transferred to the finance division, approved, either in whole or in part.

SCHOOL EMPLOYÉS.

All agents and superintendents of schools not under control of agents are required, during the last quarter of the fiscal year, to submit an estimate of the positions and salaries which are deemed necessary for properly carrying on the schools under their charge during the coming fiscal year. When these are received in the division, the question of providing employés for the schools and the salaries of each is considered. The attendance of each school as shown by the last quarter's report, the probable increase or decrease during the next year, the appropriations available, the reports of inspectors and special agents, and any other information available regarding each school, are all factors which enter into the determination of what force will be necessary.

The list of positions and salaries are then entered into a book, showing each school separately, and transmitted to the Hon. Secretary of the Interior for his approval. When the Secretary has approved the list it is returned to the Indian Office, and after receiving its proper file mark is sent to this division. A letter is then sent to each agent or superintendent having charge of schools informing them of the positions and compensations allowed, and instructions are given to forward, as soon after July 1 as possible, nominations of persons to fill the positions (except such as have been or are to be appointed by this office), such nominations to be submitted on a blank descriptive list, showing the name, position, compensation, sex, race, age, social condition, where born, whence appointed, and previous occupation of each person nominated.

When the nominations are received they are referred to this division, where each list of nominations is carefully examined and compared with the list of employés authorized, in order to ascertain whether the nominations agree as to positions and salaries. If found correct, the names, with the information on the descriptive list, are recorded in a record of school employés. A letter is then written to the proper officer informing him that his nominations are approved. If the nominations are not in accordance with the authorized positions and salaries, they are returned for correction, with a letter noting the defects.

Changes in school employés.—When the service of any school employé terminates, from any cause, the facts in the case are submitted to the Indian Office on the descriptive list, giving the date and the reason of such termination. The name of a person to fill a vacancy is usually submitted at the same time. The information required in each case is the same as is required in the annual list of nominations. The report of change in employés is compared with the record, in order to ascertain if the person whose service terminates appears upon the roll, and if the nomination is in accordance with the authorized list. If found correct, the changes are entered in the record of school employés, and notice is sent of the approval.

IRREGULAR EMPLOYÉS.

At some of the schools, under certain circumstances, it is necessary to employ temporary labor, mostly Indian, and such labor is reported at the end of each month on a blank provided for the purpose, showing the character of the service, the necessity for it, the number of days employed, the rate of compensation, the amount paid, and the name of the person employed. Such reports, when received in this division are scrutinized for the purpose of ascertaining the necessity for the work, the reasonableness of the compensation, and if computations are correct.

If any white labor appears on the report a letter is written to Hon. Secretary of the Interior, asking authority to expend the amount involved. When the authority is received in this division a letter is written, approving of the expenditure, as shown by the report.

Inspectors' and special agents' reports.—These reports are recorded, the recommendations and suggestions considered; and the attention of the person having supervision of the school called to anything requiring action, with instructions to take the necessary steps to increase the efficiency of the schools.

Contracts for education of Indian pupils.—These contracts are prepared (5 copies of each) in this division, and sent to the party of the second part for signature. When they are returned they are forwarded to the Hon. Secretary of the Interior for his approval.

As to the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified in the education division of the Indian Office, Department of the Interior, the miscellaneous character of the work of this division precludes the possibility of giving any definite information as to the amount of work done by any individual employé.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the education division of the Indian Office, Department of the Interior:

Calendar year.	Employés.	Average days present.	Average hours employed daily.
1885*	3	290	7
1886	5	1,392	7
1887 (to March 1)	5	236	7

* Division created September 1, 1885.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the education division of the Indian Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to Mar. 1).	Character of business.
Maximum number of days		103½	296	48	Miscellaneous.
Minimum number of days		85½	271	45	Do.

The division was organized on September 1, 1885; consequently these figures are for four months only.

LICENSED INDIAN TRADERS.

The clerk in charge of matters relating to licensed Indian traders does not belong to any one of the regular divisions of the office, but is assigned to the office of the Assistant Commissioner.

At almost every agency in the service from one to six traders are licensed to live upon the reservation and keep stores for supplying the Indians with such goods as they may desire to purchase, the kind and quality of goods kept being specified by this office. The number of traders licensed upon any reservation is now determined by the gross amount of annual trade, and the limit of profit which may be realized from goods sold to Indians is fixed by this office. Schedules of prices, classifying the goods kept, and fixing the profit which may be realized upon the different classes, are sent to every agent having licensed traders under his jurisdiction.

A license to trade is granted for one year only, and if the trader remains it must be renewed yearly.

The regulations governing licensed traders are to be found in the Regulations of the Indian Department for 1881, sections 544 to 576, and also in several circular letters issued since the compilation of the above Regulations.

When an application for license to trade is received it is marked with the letters A. C. (showing that it is to be considered in the Assistant Commissioner's office) and sent to the Files, where it is stamped and registered. It is then sent to the clerk in charge of traders' matters, where it is placed in a file jacket, with the recommendations of the applicant, properly marked and filed. Before a license is issued the applicant is required to give a bond in the sum of \$10,000 to insure a compliance with the laws and regulations governing trade and intercourse with the Indians.

Besides keeping on file all bonds of licensed traders and applicants for license the clerk in charge of these matters makes out all licenses, has charge of the preparation of all correspondence upon the subject for signature, examines the reports of United States Indian agents, special agents in the field, and inspectors, in order to collect

and bring forward for official action all matter in them relating to Indian traders and the Indian trade. He has also the consideration of all charges preferred against Indian traders and the preparation of instructions to agents and special agents directed to investigate the same.

Every licensed trader (except those among the five civilized tribes) is required to forward monthly all invoices of goods purchased. The trader's clerk is required to examine these invoices, and if they are approved they are sent to the general files of the office, subject to inspection at any time.

Matters relating to trading licenses and the regulation and control of traders involve a great deal of correspondence. There are frequent charges of violation of the intercourse laws and the Rules and Regulations of the office which require thorough investigation and close consideration in order that justice may be done. It is sometimes necessary, in order to rid the Indian country of improper persons who refuse to comply with the requirements imposed or whose presence upon the reservations is detrimental to the civilization of the Indians, to revoke the license of Indian traders and remove them with their effects from the reservation. In such cases, besides a thorough consideration of all facts bearing upon the matter, great care and judgment is necessary in the preparation of the correspondence, &c., in order that as little pecuniary loss as possible may result from the removal.

Besides performing the duties mentioned the same clerk makes the semi-monthly pay-rolls of the Indian Office, keeps the time rolls, showing the absences of all clerks in the office, and renders a monthly report to the Secretary of the Interior. In addition he performs such occasional miscellaneous duties as attending to the weekly issue of stationery, opening and marking the correspondence received, &c.

BUREAU OF PENSIONS.

Report of the Bureau of Pensions on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE COMMISSIONER OF PENSIONS,
Washington, D. C., April 6, 1887.

SIR: I have the honor to transmit herewith reports from the several divisions of this Bureau embodying the information called for in departmental circular of the 23d of March, for the use of the Senate Select Committee appointed to inquire into and examine the methods of the business and work of the Executive Departments.

The information is as complete as can be made at this time with the records at hand, and in instances where the information is not complete, I have directed that the reasons therefor be given by the chiefs of the divisions.

The Commissioner respectfully suggests that in some instances it has been found advisable—notably in regard to questions of annual leave, and sick leave, &c.—to divide the period for which the report is made into fiscal years rather than into calendar years; for the reason that the force allotted by law to the performance of these duties has varied with the fiscal years under the several acts of appropriation.

The Commissioner respectfully submits that any standard of efficiency or excellence which is based alone upon the number of cases disposed of by any employé in the Bureau would be unjust, owing to the fact that the cases disposed of vary so materially in their character. A single case often has more hard work in it, and requires a more thorough and patient study, and the exercise of more judicial acumen, than a dozen cases of another and different type.

The Commissioner calls attention in particular to the report of the chief clerk as exhibiting the progress of a case through the Bureau, and as exhibiting the general working force of the office, with appropriate remarks. And, finally, the Commissioner challenges attention with genuine satisfaction, to the report of the certificate division as showing the great increase in the output of the Bureau, although a reduction has been made in the clerical force thereof, as shown by Table A, since the first day of January, 1884, of 128 employés, according to statutory allowance.

Very respectfully,

JOHN C. BLACK.

Hon. L. Q. C. LAMAR,
Secretary of the Interior.

OFFICE OF THE CHIEF CLERK.

Report of the chief clerk, Bureau of Pensions, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., April 4, 1887.

SIR: I have the honor to present my report showing "the number of days devoted to the consideration and transaction of the public business" by the employes of the Bureau of Pensions during the years 1884, 1885, 1886, and up to March 1, 1887, and "the number of days devoted to the business" of the Bureau "by the employe present for the greatest number of days and the employe present for the least number of days during the same period."

It is impracticable to report the average number of days and the maximum and minimum number of days devoted to the consideration and transaction of the public business during the said period by the employes in each division of the Bureau. No division time records have been kept, but the daily and weekly reports from the different divisions of the Bureau are consolidated, and the record of the time of the entire clerical force arranged in alphabetical order by the chief clerk.

Attached will also be found a report showing the number of cases in the admitted files, in charge of the chief clerk, on January 1, 1884, January 1, 1885, January 1, 1886, January 1, 1887, and on March 1, 1887, together with the number of cases filed, year by year, from January 1, 1884, up to March 1, 1887.

There are no records at my disposal from which I can report the number of cases actually drawn from the files by the different divisions prior to January 1, 1886, since which date I am enabled to report the number of cases drawn and the number filed month by month.

I also present a tabulated statement showing the number of certificates of disability on file January 1, 1884, the number received month by month, and the number applied to pension cases up to March 1, 1887.

I am, sir, very respectfully,

D. I. MURPHY,
Chief Clerk.

Hon. JOHN C. BLACK,
Commissioner of Pensions.

The time and attention to business by employes in the Bureau of Pensions.

[Fiscal year 1883-'84. Number of employes authorized by law, 1,548.]

Date.	Number of employes per month.	Working days in month.	Total working days of whole force.	Time lost.			Actual time of entire force.	Average working days per year or parts thereof.
				Annual.	Sick.	Total.		
1884.								
January	1,546	26	40,196	2,163	794	2,957	.....	.....
February	1,547	24	37,128	2,148	879	3,027	.....	.....
March	1,546	26	40,196	2,330	1,072	3,402	.....	.....
April	1,545	26	40,170	2,091	1,103	3,194	.....	.....
May	1,546	26	40,196	2,779	1,031	3,810	.....	.....
June	1,545	25	38,625	3,080	1,126	4,206	.....	.....
	*1,545.83	.....	236,511	14,591	6,005	20,596	215,915	139.67

The time and attention to business by employes in the Bureau of Pensions—Continued.

[Fiscal year 1884-'85. Number of employes authorized by law, 1,675.]

Date.	Number of employes per month.	Working days in month.	Total working days of whole force.	Time lost.			Actual time of entire force.	Average working days per year or parts thereof.
				Annual.	Sick.	Total.		
1884.								
July	1,523	26	39,598	3,247	1,417	4,664	.....	.....
August	1,520	25	38,000	6,285	1,524	7,809	.....	.....
September	1,588	26	41,288	4,288	1,550	5,838	.....	.....
October	1,649	27	44,523	5,316	2,343	7,659	.....	.....
November	1,663	24	39,912	5,894	2,004	7,898	.....	.....
December	1,667	26	43,342	3,726	1,614	5,340	.....	.....
1885.								
January	1,663	26	43,238	1,032	1,949	2,981	.....	.....
February	1,664	21	34,944	998	1,558	2,556	.....	.....
March	1,659	24	39,816	1,518	1,870	3,388	.....	.....
April	1,659	26	43,134	766	1,266	2,032	.....	.....
May	1,632	23½	38,352	1,258	900	2,158	.....	.....
June	1,600	26	41,600	1,252	736	1,988	.....	.....
	*1,623.92	.....	487,747	35,580	18,731	54,311	433,436	266.90

[Fiscal year 1885-'86. Number of employes authorized by law, 1,675.]

1885.								
July	1,484	26	38,584	2,549	398	2,947	.....	.....
August	1,484	26	38,584	6,022	610	6,632	.....	.....
September	1,500	26	39,000	5,271	1,013	6,284	.....	.....
October	1,501	27	40,527	3,639	763	4,402	.....	.....
November	1,506	24	36,144	2,276	706	2,982	.....	.....
December	1,520	26	39,520	3,540	664	4,204	.....	.....
1886.								
January	1,535	25	38,375	475	940	1,415	.....	.....
February	1,533	23	35,259	595	792	1,387	.....	.....
March	1,520	27	41,040	625	1,833	2,458	.....	.....
April	1,515	26	39,390	938	1,014	1,952	.....	.....
May	1,513	25	37,825	1,328	892	2,220	.....	.....
June	1,528	26	39,728	1,280	489	1,769	.....	.....
	*1,511.58	.....	463,976	28,538	10,114	38,652	425,324	281.38

[Fiscal year 1886-'87. Number of employes authorized by law, 1,547.]

1886.								
July	1,515	26	39,390	3,586	942	4,528	.....	.....
August	1,504	26	39,104	7,935	998	8,933	.....	.....
September	1,512	26	39,312	6,637	1,120	7,757	.....	.....
October	1,512	26	39,312	4,624	901	5,525	.....	.....
November	1,523	24	36,552	2,417	817	3,234	.....	.....
December	1,535	25	38,375	3,269	674	3,943	.....	.....
	*1,516.83	.....	232,045	28,468	5,452	33,920	198,125	130.63
1887.								
January	1,538	25	38,450	581	964	1,545	.....	.....
February	1,539	23	35,397	654	854	1,508	.....	.....
	*1,538.50	.....	73,847	1,235	1,818	3,053	70,794	46.02
	†1,522.25	.....	305,892	29,703	7,270	36,973	268,919	176.65

* Average.

† Average eight months, July 1, 1886, to February 28, 1887.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business by the employes of the Bureau of Pensions during the years named :

Fiscal year.*	Average number of days.	In person or by proxy.	Number authorized by law.	Number actually employed.
January 1, 1884, to June 30, 1884.....	139. 67	In person.	1, 548	1, 545 ⁵ / ₈
July 1, 1884, to June 30, 1885.....	266. 9	....do.....	1, 675	1, 623 ¹ / ₂
July 1, 1885, to June 30, 1886.....	281. 38	.. do.....	1, 675	1, 511 ⁷ / ₂
July 1, 1886, to March 1, 1887.....	176. 65	....do.....	1, 547	1, 522 ¹ / ₄

* This table is arranged according to fiscal years because of the variation in the clerical force provided by the appropriation bills.

The following statement shows the number of days devoted to business by the employe present for the greatest number of days, and employe present for the least number of days, in the Bureau of Pensions during the years named :

Fiscal year.	Maximum number of days.	Minimum number of days.
January 1, 1884, to June 30, 1884.....	156	6
July 1, 1884, to June 30, 1885.....	313	43
July 1, 1885, to June 30, 1886.....	311	124
July 1, 1886, to March 1, 1887.....	207	59

Statement showing the principal items of business transacted in the admitted files section of the Bureau of Pensions, Department of the Interior.

The business of the admitted files consists in arranging all admitted pension cases by class and number in the files, and in furnishing them when called for by proper authority. The section is now under the supervision of the chief clerk.

Statement showing in detail the methods of transacting business in the admitted files section of the Bureau of Pensions, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the section, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

Upon the allowance of claims for pension the cases are sent to the admitted files, where they are classified (invalid, widows, &c.) and arranged according to number in bundles which are securely strapped, labeled, and put in proper place in the files. When a case is required for any purpose by an officer of the Bureau or by a chief of division, or when an application is filed for increase, reissue, restoration, &c., it is charged upon a slip to the person making the call. This slip takes the place of the case in the files and remains there until the case is returned.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the admitted files (in charge of chief clerk) division of the Bureau of Pensions, Department of the Interior :

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Pending Jan. 1, 1885.	Received during 1885.	Pending Jan. 1, 1886.	Received during 1886.	Pending Jan. 1, 1887.	Received up to March 1, 1887.	Pending Mar. 1, 1887.
Invalid cases.....	255, 360	27, 122	282, 482	33, 036	315, 518	29, 635	345, 153	5, 334	350, 487
Widows and dependent cases.....	203, 744	7, 200	210, 944	8, 233	219, 177	9, 760	228, 937	1, 999	230, 936

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the admitted files (in charge of chief clerk), division of the Bureau of Pensions, Department of the Interior :

Character of business.	Cases drawn.	Cases filed.	Evidence applied.	Total.
1886.				
January	34,200	26,867	3,446	64,513
February	30,238	21,899	3,656	55,793
March	34,206	23,432	6,731	64,369
April	31,088	22,025	15,714	68,827
May	23,187	20,330	26,098	69,615
June	25,308	20,244	6,287	51,839
July	22,557	17,350	5,377	45,284
August	26,788	20,787	993	48,568
September	28,529	22,810	5,556	56,895
October	27,457	19,748	4,277	51,482
November	25,676	19,855	2,878	48,409
December	22,791	18,087	2,419	43,297
	332,025	253,434	83,432	668,891
1887.				
January	32,347	24,326	1,364	58,037
February	28,196	20,091	1,700	49,987
	60,543	44,417	3,064	108,024

Statement showing the principal items of business transacted in the certificate of disability section of the Bureau of Pensions, Department of the Interior.

The certificate of disability section receives, records, and files all certificates of disability furnished by the War Department, all naval medical surveys and death certificates from the Navy Department, and furnishes the same upon call of the proper adjudicating division.

The work of the certificate of disability section, in charge of the chief clerk, is of such a character as to make it impossible to report the actual amount of business transacted by the different clerks. The section has charge of the duplicate certificates of disability furnished by the War Department, the reports of the naval medical surveys, and the death records furnished by the Navy Department.

The current work of this section is generally finished up by the close of each day. As the certificates of disability, copies of medical surveys, and the death records are called for by the different adjudicating divisions, they are at once furnished, applied to the case, and proper record made. On the new record books now in process of completion, 150,000 names, with service, &c., have been recorded since June 1, 1885. Prior to that date I am unable to report the number of names recorded.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the certificate of disability section (in charge of chief clerk) of the Bureau of Pensions, Department of the Interior :

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Certificate of disability	139,518	1,196	6,974	133,740	886	3,942	130,684	831	3,580	127,935	144	1,098	126,981
Naval medical survey	10,702	300	250	10,752	300	250	10,802	300	227	10,875	40	20	10,895
Naval certificates of death	6,501	100	80	6,521	100	90	6,531	100	68	6,563	16	10	6,589
	156,721	1,496	7,304	151,013	1,286	4,282	148,017	1,231	3,875	145,373	200	1,128	144,465

The following statement shows the average number of employés in the chief clerk's division of the Bureau of Pensions, Department of the Interior, during the periods specified :

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	42	41	40	40	39	38	37	28	36	35	40	40
1885.....	44	48	48	47	41	39	38	35	36	38	39	39
1886.....	42	42	.....	.....	45	47	40	.....	.....	47	.....	.....
1887 (to Mar. 1)	52	53	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

This includes clerks detailed to Interior Department.

MAIL DIVISION.

Report of the mail division, Bureau of Pensions, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing in detail the methods of transacting business in the mail division of the Bureau of Pensions, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the division, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same pas es, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

General JOHN C. BLACK,
Commissioner of Pensions :

SIR: I have the honor to present the following statement as to the methods of this division and the volume of work handled by it during the fiscal years of 1883-'84, 1884-85, 1885-'86, and of the eight months (July 1, 1886, to March 1, 1887) of the current fiscal year, in reference to the circular letter of the Hon. F. M. Cockrell, chairman Senate Select Committee, transmitted by the honorable Secretary of the Interior on the 18th instant. It has been our aim to do the greatest possible amount of work in the shortest time and with the least force. It will be seen that the number of persons engaged in this work has gradually decreased until now, when we are handling the largest mails with the smallest force we have ever had. It is the duty of this division to read, mark, stamp, record, count, classify, and deliver all the incoming mail to the respective divisions of this office. Indelible ink is used upon all the stamps (sample impressions inclosed), and the date affixed by these stamps governs the action of the office as to the filing of the claim or paper. The mails are thus disposed of always on the day of their receipt. Our work is current in the strictest sense and there is none reported, it will be observed, as undisposed of:

Number of pieces received in one day :	
Maximum	12, 000
Minimum	4, 000
Number of letters sent in one day :	
Maximum	10, 000
Minimum	3, 000

U. S. PENSION OFFICE.
A.
Apr. 7, 1887.

U. S. PENSION OFFICE.
Apr. 7, 1887.

U. S. PENSION OFFICE.
Apr. 7, 1887.

U. S. PENSION OFFICE.
Apr. 7, 1887.

U. S. PENSION OFFICE.
B.
Apr. 7, 1887.

CONGRESSIONAL.
Apr. 7, 1887.
U. S. Pension Office.

U. (F.) S. PENSION OFFICE.
Apr. 7, 1887.

U. S. PENSION OFFICE.
Apr. 5, 1887.

The following statement shows the principal items of business transacted in the mail division of the Bureau of Pensions, Department of the Interior:

During fiscal year—	Mail received.			Mail sent.		
	Pieces received.	Per month.	Per day.	Letters sent.	Per month.	Per day.
1883-'84	1,776,906	148,076	5,807	1,550,300	129,192	5,066
1884-'85	1,830,884	152,574	6,023	1,453,971	121,164	4,783
1885-'86	2,036,523	169,711	6,699	1,646,086	137,174	5,415
July 1, 1886, to February 28, 1887*	1,359,419	169,927	6,730	1,105,302	138,163	5,472

* Eight months.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the mail division of the Bureau of Pensions, Department of the Interior:

Character of business.	1884.	1885.	1886.	Jan. and Feb., 1887.
Mail received.....	1,755,759	1,940,872	2,022,954	391,561
Mail sent.....	1,468,450	1,567,240	1,684,830	287,970

The following statement shows the average amount and character of business performed, transacted, and disposed of, during the periods specified, by the employes in the mail division of the Bureau of Pensions, Department of the Interior:

Character of business.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.												
Mail received.....	5,455	6,133	6,130	5,815	5,589	5,577	4,958	5,926	5,578	6,099	4,889	6,209
Mail sent.....	5,179	5,421	5,461	5,450	5,266	4,712	4,057	4,268	4,397	4,616	3,718	4,642
1885.												
Mail received.....	5,861	6,510	7,307	6,234	6,271	6,523	6,633	6,018	6,083	6,657	6,845	6,518
Mail sent.....	5,105	5,339	4,865	5,687	5,633	5,117	4,993	4,597	5,030	5,444	5,373	5,253
1886.												
Mail received.....	6,311	6,814	6,941	7,535	6,868	7,138	6,598	5,974	5,877	5,962	6,548	6,769
Mail sent.....	5,401	5,324	5,672	5,932	6,065	5,394	5,342	4,728	4,373	6,120	5,955	5,308
1887.												
Mail received.....	7,475	8,899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mail sent.....	5,661	6,368	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the average number of employes in the mail division of the Bureau of Pensions Department of the Interior, during the periods specified:

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	42	42	42	42	42	41	40	37	36	37	33	33
1885.....	34	34	33	33	32	31	31	31	32	30	29	29
1886.....	30	30	30	30	31	30	31	30	30	29	28	27
1887 to March 1.....	28	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Statement showing the maximum and minimum amount of business transacted and disposed of by the employe doing the most and the employe doing the least during the periods specified, in the mail division of the Bureau of Pensions, Department of the Interior.

Owing to the varied duties and miscellaneous nature of the work of this division, such a report as is indicated above is entirely impracticable and impossible. The prepared mail is the joint product of the entire force, and while some are more efficient than others, this is always easily determined by the chiefs of section and the chief of the division.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business, during the periods specified, by the employés in the mail division of the Bureau of Pensions, Department of the Interior :

Calendar year.	Number of employés.	Average number days present.	Average number of hours employed daily.	Number by proxy.
1884.....	39	255	6 $\frac{1}{2}$	None.
1885.....	32	263	6 $\frac{1}{2}$	Do.
1886.....	30	265	6 $\frac{1}{2}$	Do.
1887 to March 1.....	28	45	6 $\frac{1}{2}$	Do.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé for the least number of days in the mail division of the Bureau of Pensions, Department of the Interior, during the periods specified :

	1884.	1885.	1886.	1887 to Mar 1.	Character of business.
Maximum number of days	292	283	296	48	Mail received and sent.
Minimum number of days	183	219	246	16	Do.

Respectfully submitted.

M. A. MANNING,
Chief of the Mail Division.

U. S. PENSION OFFICE, *April 7, 1887.*

RECORD DIVISION.

Report of the record division, Bureau of Pensions, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
PENSION OFFICE,
Washington, D. C., April 2, 1887.

Hon. JOHN C. BLACK, *Commissioner :*

SIR : In response to your verbal direction that I furnish certain information pertaining to the operations of this division called for by the Hon. F. M. Cockrell, chairman of the Senate Select Committee, in his communication addressed to the honorable Secretary of the Interior, March 18, 1887, copies of which were transmitted to this Bureau by Departmental circular of March 23, 1887, I have the honor to submit the accompanying report.

Very respectfully,

C. R. FAULKNER,
Chief of Record Division.

Statement showing in detail the methods of transacting business in the record division of the Pension Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in this division, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

This division has charge of the records of the late war in which a record is kept of applicants for pension under act of July 14, 1862.

All original applications and applications for increase of pension are received in this division direct from the mail division. The original claims are jacketed, searched, numbered, and recorded. Those for increase are jacketed and forwarded to their proper divisions.

It is the duty of this division to enter upon the State, combination, and certificate records all certificates issued from the certificate division, and forward cases to the admitted files.

This division also receives from the mail and other divisions, evidence, letters of inquiry, and Congressional inquiries, &c., the receipts of which, during the fiscal year of 1885-'86, averaged about 45,000 pieces per month. No record having been kept in this division previous to the above dates, it is impossible to give the amount received during the year 1884. This class of work requires to be briefed and searched upon the records, it being the special duty of this division to supply from the records the name, number, or service to each piece of evidence, or letter of inquiry, when that important data has been omitted by the claimant or attorney, in order that it may reach as speedily as possible the case for which it is intended.

Record has only been kept of the amount of work received and disposed of as a whole, and can be reported more conveniently by fiscal years.

The time reports are given for the calendar year 1886 to March 1, 1887. Prior to this date no complete record was kept in this division of the time lost.

Upon the receipt of an application for pension, the various steps taken until finally disposed of by this division are as follows:

The service alleged by applicant is verified from State roster, and all additional services are supplied when omitted by the applicant.

It is then jacketed, giving on the face of the same the name, service, or services, post-office address of claimant, date of enlistment, date of discharge, date of filing, attorney's address, &c., after which it is passed to the State records, where a careful search is made to ascertain whether or not a prior application has been filed; if found to be a duplicate, it is forwarded to the original claim; if original, it is numbered and recorded upon the State records, in each service alleged. It is also recorded upon the three-letter combination record.

Copies are also made from the face of the jackets for preservation in the files of this division. In all original applications this division notifies claimants and attorneys of the receipt and number of the application.

From the face of an invalid jacket a service card is written for the Army and Navy survivors' division, giving number, name, rank, service, date of enlistment, date of discharge, and post-office address of claimant, after which the case is forwarded to its proper division for adjudication.

Upon the receipt of a piece of evidence in support of an application for pension the various steps taken until finally disposed of are as follows:

It is passed to the briefer, whose duty it is to read carefully and endorse thereon the applicant's name, company, battery, regiment, or other military organization, and the number of claim, provided such information is contained therein. After which it is searched on the State record when service is given, and on alphabetical record when service is omitted.

After careful search upon both records, and no claim found, notice is sent to claimant or attorney of the fact that the information given is insufficient to identify a claim, and a request for further data is made.

When the number or service of the claim to which the piece of evidence refers is found it is indorsed thereon and forwarded to its proper division.

Statement showing the principal items of business transacted in the record division of the Pension Office, Department of the Interior.

- Verifying services alleged by applicants from State records.
- Jacketing original applications.
- Jacketing applications for increase of pension.
- Searching original applications on State records to ascertain whether or not a prior application has been filed.
- Supplying numbers to original applications.
- Recording original applications on State records.
- Recording original applications on combination records.
- Verifying and examining work of jacketers.
- Recording certificates on State, certificate, and combination records.
- Briefing, searching, and supplying Congressional inquiries with the required data.
- Briefing and searching on records all evidence and letters of inquiry.
- Congressional correspondence.
- Calls for data; miscellaneous correspondence.
- Notifying claimants and attorneys of the receipt of applications.
- Correcting services and numbers on records.
- Writing slips from original cases.
- Writing service cards for the Army and Navy, survivor's division.
- Furnishing data to other divisions in answer to telephone calls.

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employés in the record division of the Pension Office, Department of the Interior :

[Average amount transacted during each month of the fiscal year 1884.]

Character of business.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.
Services verified.....	3,037	3,306	3,075	2,872	2,221	2,960	3,037	3,171	3,902	3,424	3,246	3,828
Jacketing original applications.....	3,037	3,306	3,075	2,872	2,221	2,960	3,037	3,171	3,902	3,424	3,246	3,828
Searching original applications.....	3,037	3,306	3,075	2,872	2,221	2,960	3,037	3,171	3,902	3,424	3,246	3,828
Numbering original applications.....	3,037	3,306	3,075	2,872	2,221	2,960	3,037	3,171	3,902	3,424	3,246	3,828
Recording original applications :												
State records.....	3,037	3,306	3,075	2,872	2,221	2,960	3,037	3,171	3,902	3,424	3,246	3,828
Combined records.....	3,037	3,306	3,075	2,872	2,221	2,960	3,037	3,171	3,902	3,424	3,246	3,828
Congressional correspondence*.....												
Miscellaneous correspondence*.....												
Notifying claimants.....	3,037	3,306	3,075	2,872	2,221	2,960	3,037	3,171	3,902	3,424	3,246	3,828
Correcting services, &c., on records*.....												
Service cards for Army and Navy survivors' division.....	2,119	2,365	2,182	1,988	1,486	2,084	2,184	2,340	2,808	2,454	2,203	2,698
Jacketing increase applications.....	4,448	3,872	4,502	3,362	2,549	4,877	5,305	6,719	8,246	6,924	6,053	9,733
Admitted cases recorded.....	9	2,010	2,504	3,337	1,409	1,833	4,504	2,476	2,637	5,244	3,695	5,239
Evidence, letters, &c., briefed*.....												
Notifying attorneys.....	2,429	2,624	2,460	2,297	1,776	2,368	2,429	2,536	3,121	2,739	2,596	3,062

*No record kept.

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employés in the record division of the Pension Office, Department of the Interior :

[Average amount transacted during each month of the fiscal year 1885.]

Character of business.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.
Services verified.....	3,320	3,297	3,474	3,175	3,044	3,391	3,568	4,368	5,637	5,125	4,585	5,214
Jacketing original applications.....	3,320	3,297	3,474	3,175	3,044	3,391	3,568	4,368	5,637	5,125	4,585	5,214
Searching original applications.....	3,320	3,297	3,474	3,175	3,044	3,391	3,568	4,368	5,637	5,125	4,585	5,214
Numbering original applications.....	3,320	3,297	3,474	3,175	3,044	3,391	3,568	4,368	5,637	5,125	4,585	5,214
Recording original applications :												
State records.....	3,320	3,297	3,474	3,175	3,044	3,391	3,568	4,368	5,637	5,125	4,585	5,214
Combined records.....	3,320	3,297	3,474	3,175	3,044	3,391	3,568	4,368	5,637	5,125	4,585	5,214
Congressional correspondence*.....												
Miscellaneous correspondence*.....												
Notifying claimants.....	3,320	3,297	3,474	3,175	3,044	3,391	3,568	4,368	5,637	5,125	4,585	5,214
Correcting services, &c., on records*.....												
Service cards for Army and Navy survivors' division.....	2,323	2,345	2,504	2,256	2,200	2,518	2,707	3,367	4,322	3,635	3,151	3,632
Jacketing increase applications.....	7,720	6,416	6,974	8,345	6,085	8,559	7,034	7,777	9,484	8,753	6,172	9,875
Admitted cases recorded.....	2,817	2,664	2,903	2,855	3,025	3,123	2,942	3,006	4,050	3,617	3,291	5,799
Evidence, letters, &c., briefed†.....												
Notifying attorneys.....	2,656	2,638	2,779	2,540	2,435	2,712	2,854	3,494	4,510	4,100	3,668	4,171

* No record kept.

† About 45,000 pieces per month.

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified :

Character of business.	1886.						1887.	
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
Services verified.....	4,015	3,869	3,432	3,209	2,926	3,301	4,412	5,390
Jacketing original applications....	4,015	3,869	3,432	3,209	2,926	3,301	4,412	5,390
Searching original applications....	4,015	3,869	3,432	3,209	2,926	3,301	4,412	5,390
Numbering original applications....	4,015	3,869	3,432	3,209	2,826	3,301	4,422	5,390
Recording original applications:								
State records	4,015	3,869	3,432	3,209	2,926	3,301	4,412	5,390
Combined records.....	4,015	3,869	3,432	3,209	2,926	3,301	4,412	5,390
Congressional correspondence*								
Miscellaneous correspondence*								
Notifying claimants	4,015	3,869	3,432	3,209	2,926	3,301	4,412	5,390
Correcting services, &c., on records*								
Service cards for Army and Navy survivors' division	2,735	2,587	2,278	2,104	1,884	2,266	3,231	4,042
Jacketing increase applications ...	6,950	6,074	7,772	6,671	5,708	8,766	8,804	8,044
Admitted cases recorded	2,250	2,410	2,221	3,253	3,520	2,931	3,720	3,610
Evidence letters, &c., briefed †.....								
Notifying attorneys	3,212	3,095	2,745	2,567	2,340	2,640	3,530	4,312

* No record kept.

† About 45,000 pieces per month.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below in the division of records in the office of the Commissioner of Pensions :

Character of business.	Transacted and disposed of during fiscal year 1884.	Transacted and disposed of during fiscal year 1885.	Transacted and disposed of during fiscal year 1886 to March, 1887.
Services verified	38,079	30,554	48,198
Jacketing original applications	38,079	30,554	48,198
Searching original applications	38,079	30,554	48,198
Numbering original applications.....	38,079	30,554	48,198
Recording original applications, State records	38,079	30,554	48,198
Recording original applications, combined records	38,079	30,554	48,198
Congressional correspondence*			
Miscellaneous correspondence*			
Notifying claimants.....	38,079	30,554	48,198
Notifying attorneys.....	30,463	24,443	38,558
Correcting services, &c., on records*			
Service cards for Army and Navy survivors' division	26,909	21,127	34,900
Jacketing increase applications.....	66,590	58,879	93,195
Admitted cases recorded	34,897	23,915	40,092
Evidence, letters, &c., briefed*		360,000	540,000

* No record kept.

The work passing directly through the division, there was none undisposed of at the close of the year.

The following statement shows the average number of employes in the record division of the Pension Office, Department of the Interior, during the periods specified :

Fiscal year.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.
1884.....	70	65	65	68	69	69	70	68	67	65	63	61
1885.....	61	62	62	55	53	52	52	52	51	50	43	43
1886.....	43	43	44	45	45	45						
1887 (to March 1)							45	47				

A statement showing the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least, during the periods specified, in the record division of the Pension Office, Department of the Interior, cannot be furnished, as the work is of such a nature that the clerks are frequently changed from one class of work to another, this having been found necessary, and no record having been kept of the work performed individually.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the record division of the Pension Office, Department of the Interior:

Year.	No. of employés.	Average of days present.	Average of hours employed daily.	No. by proxy.	Remarks.
1884.....	66 $\frac{2}{3}$	.....	.....	.....	} Complete record of time not kept in this division. Averaged on basis of 365 days.
1885.....	53	.....	.....	.....
1886.....	44 $\frac{5}{8}$	331	7	0	
1887 (to March 1)	47	56 $\frac{2}{3}$	7	0	Averaged on basis of 59 days.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days, in the record division of the Pension Office, Department of the Interior, during the periods specified:

	1884.*	1885.*	1886.	1887 (to Mar. 1).
Maximum number of days.....	361 $\frac{1}{2}$	59
Minimum number of days.....	307	41

* Complete record of time not kept in this division.

ARMY AND NAVY SURVIVORS' DIVISION.

Report of the Army and Navy survivors' division, Bureau of Pensions, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
PENSION OFFICE,
Washington, D. C., April 2, 1887.

Hon. JOHN C. BLACK,
Commissioner of Pensions:

SIR: In response to your verbal direction that I furnish certain information pertaining to the operation of this division, called for by Hon F. M. Coekrell, chairman of the Senate Select Committee, in his communication addressed to the Secretary of the Interior, March 18, 1887, copies of which were transmitted to this Bureau by Department circular, I have the honor to report as follows:

That this division, now known as the Army and Navy survivors', was not recognized as a division until May 18, 1885. In October, 1883, the work had its origin in the special examination division, and continued as a section of that division, with an average of ten clerks, until May, 1884.

The object in establishing this branch of work was to collect names and post-office addresses of surviving soldiers and sailors of the Union Army or Navy, in order to aid applicants for pension to obtain the evidence necessary to the final adjudication of their claims.

In the analysis of pending cases made in the Pension Bureau early in 1883, it was ascertained that of the total number pending—244,000 in round numbers—204,000 were awaiting response of claimants to calls for necessary evidence, and that the evidence lacking in the majority of these cases was of officers or enlisted men to show the origin and continuance of disability, and if contracted in service and line of duty. In a large number of these cases there was either no record at all at the Adjutant-

General's office, or one of constant presence for duty, and without the positive evidence of officers or comrades no pension can be granted under the law.

The inability to furnish this evidence, in otherwise meritorious cases, arose from the fact that comrades, being widely separated, had no means of learning each other's whereabouts.

The best plan for obtaining the data desired, and the best method for compiling and making the record a matter of ready reference, was under discussion for some time, and the result was the designing of the accompanying cards.

In order to successfully carry out the project, it was deemed advisable to interest the officers of the Grand Army of the Republic, and through them to obtain lists comprising the full membership of that organization. Service cards (see Exhibit 1) were prepared and sent out to the assistant adjutant-general of each Department, G. A. R.

An order was issued to all examiners in adjudicating divisions, requesting them to make a copy of the name, rank, service, and present post-office address of all affiants in claims which passed through their hands. A similar order was issued to all special examiners in the field, requiring them to supply the same data of all ex-soldiers of whom they gained knowledge during the examination of pension claims.

Many lists were received from various sources, giving only name and post-office address; as these were useless to the record without the rank and service, still another card was designed for the purpose of obtaining full data with as little trouble as possible. (See Exhibit 2.)

Correspondence was had with officers of regimental associations with a view of obtaining rosters of the full membership of those organizations, and when said lists were received they were copied on cards prepared for office use. (See Exhibit 3.)

The other sources for obtaining the material necessary to the establishment of this record were many and varied. Officers and comrades of various regiments, resident in this city and elsewhere, learning that such a record was in course of preparation, exhibited a great interest, and voluntarily forwarded much valuable information as to officers and enlisted men known to them.

In connection with the above described, a separate and complete record of Union ex-prisoners of war is in course of preparation, and as a means of filing all information received relative thereto, the card, Exhibit 4, was printed.

In January, 1884, about 5,000 of the G. A. R. cards had been received; and it was decided that the best method of filing for ready reference was to arrange them by company, regiment, and State organization, and arm of service. Woodruff's patent file-cases were utilized, and the boxes labeled according to arm of service, namely, blue for infantry, yellow for cavalry, red for artillery, and dark blue for Navy.

From January, 1884, to May, 1885, the record increased from 5,000 cards to between 500,000 and 600,000, and at this date there are fully 750,000 on file.

The tabulated statement affixed hereto shows the number of names together with post-office addresses supplied to cases each month since April 16, 1884, when the section was first organized, to February 28, 1887.

The work as it progressed suggested many new ideas which were adopted when they appeared to further the best interest of the Bureau, and it will be observed that as time advanced the monthly report became more specific.

Rosters of regimental surgeons are supplied to the various adjudicating divisions, but they are somewhat incomplete in the matter of post-office addresses and were printed in 1882. When in the examination of a claim the question arose of medical treatment in hospitals by surgeons U. S. Army, U. S. Volunteers, or contract surgeons, it was a slow matter, and one often fraught with much difficulty, to obtain this very necessary class of information. There has been in course of preparation for some time past, a record of surgeons U. S. Army, U. S. Volunteers, and contract surgeons who were in charge of, or on duty in, the general and post hospitals throughout the loyal States during the war; and for the purpose of collecting the necessary data, several blanks (see Exhibit 5) are sent to every surgeon whose name may come before the Bureau in the above connection. The verification of the post-office address of regimental surgeons is also attended to. This branch of the record has been of great service; in fact it ranks with the most important features of the division.

In connection with the surgeons' record there is being prepared a list of all hospitals where Union soldiers were cared for during the war. When completed, this list will show the exact location, and give the history of nearly 3,000 hospitals, whether general, post, or field, also the convalescent camps and the exact dates of establishment and discontinuance of same. The value of such a record as this can be fully understood from the following description: A claimant states that he was wounded at Fort Wagner, was taken on hospital ship to Hilton Head, thence to Beaufort, S. C., where he was sent to a hospital in the house of Barnwell Rhett. By referring to our list it is immediately ascertained that said house was Hospital No. 3, Beaufort, S. C., Department of the South. By a further reference then to our surgeons' files we can readily obtain the names of the surgeons who were on duty at that hospital at the time the claimant was an inmate.

In the early days of this division, when, in fact, it was but yet a section of another division, the records kept of work received and completed were very incomplete. It will, therefore, be an impossibility to give the exact amount of work pending and undisposed of at the close of any calendar year.

During the past year the work of the division has increased so rapidly that it has been found impossible to keep it up to date with the force of clerks provided, and on the 1st of March a full account was taken of arrears of work in the division, with the following result: In that branch of the division where information is supplied to adjudicating divisions—Exhibit 6 is the form used by divisions in calling for same—it was found that of 1,866 calls received during the month of February, none had been taken up for action, as the January work was not yet completed. One thousand two hundred and eighty-six is the largest number of calls ever completed for adjudicating divisions in any one month, and the difference between 1,866 received and 1,286 completed requires no further comment.

In that branch of the division devoted to the correspondence of claimants and their attorneys, the count of March 1 showed 1,570 letters received during the month of February; 210 of this number were acted upon in addition to some January work, leaving 1,360 in arrears. Of these 1,570 letters 300 were requests for post-office addresses of officers and comrades of Regular Army or Navy, and about 60 were for post-office addresses of surgeons.

In 1885 the Commissioner desired to know the actual benefit rendered to the Bureau by the record described, and an estimate was made for the annual report of that year by the chief of the special examination division, which showed that he considered the work of special examination in the field expedited 30 per cent. by the addition of lists of officers and comrades, with post-office addresses, furnished in the cases, and the assistance rendered to the adjudicating divisions was estimated in about the same proportion; and inasmuch as the record has been greatly improved, and the system of furnishing data more complete, and the clerks better educated in regard to the various branches of service, it is safe to presume that the assistance rendered at the present date is greater than two years ago.

This branch of the Pension Bureau has become very widely known, and, as the following letters will show, its usefulness is appreciated by other Departments of the Government service:

TREASURY DEPARTMENT, SECOND AUDITOR'S OFFICE,
Washington, D. C., October 28, 1885.

SIR: In compliance with your verbal request of this date for information in regard to the benefit derived by this office from information received through the Army and Navy survivors' division of your office, I would state that in a large number of cases in this office, involving erroneous payments and overpayments to officers of the Army and others, great difficulty has been experienced in ascertaining the residence or whereabouts of such persons, but since the organization of said division in your office we have, in nearly all the cases in which inquiries have been made, been enabled to obtain definite information so as to dispose of the cases satisfactorily, and frequently to recover quite large sums of money.

I do not know of any other source from which an equal amount of information could be obtained. The manifest advantage of such Government records, if kept up, can readily be seen, especially when we consider the great lapse of time which often arises since the officers left the service before the indebtedness was discovered.

Very respectfully,

WM. A. DAY,
Auditor.

Hon. J. C. BLACK,
Commissioner of Pensions.

WAR DEPARTMENT, ADJUTANT-GENERAL'S OFFICE,
Washington, D. C., October 29, 1885.

SIR: In reply to your request of this date for a statement as to whether the information received from the Army and Navy survivors' division of your office has been satisfactory and of any material benefit to this office, I have to say that it has often been found necessary to ascertain the present whereabouts of officers and enlisted men of the late volunteer army in order either to corroborate or disprove statements made by citizens, or by officers or enlisted men, who were not present at the time of the occurrence to which they testify, in applications for amendment of record, removal of charge of desertion, &c., and the information received from the division named has been found to be satisfactory and of material benefit to the claimants' interests as well as to the Government.

I am, very respectfully, your obedient servant,

R. C. DRUM,
Adjutant-General.

The COMMISSIONER OF PENSIONS, *Washington, D. C.*

There is perhaps no description that would give a clearer idea of the advantage of this record system to the Pension Bureau than to relate the following instances:

In a case that has been pending for nineteen years, the claimant, who is a resident of Wisconsin, had served in the Sixth Maryland Infantry, and was a prisoner of war. He claimed a pension for a wound received at the time of his capture. There were fourteen members of his company captured at the same time and place, but all of the fourteen had either died in prison or since the war, as was believed, and it was necessary for him to file evidence that the wound for which he applied for pension was received in service and in line of duty. He came to Washington to advise with the Commissioner as to the best course to pursue. He was at once furnished with the names of two of his comrades, both residents of Washington, one holding an important Government position. He called upon them, learned that they had participated in the same battle, and had seen the claimant lying on the battle-field after he had been wounded. In short, he was able that same afternoon to place in the Commissioner's hands the necessary evidence to prove the justice of his claim.

On the other hand, a claimant, late of the New York service, filed an application for pension through a claim agent, declaring under oath that owing to exposure and disease contracted in the service he had wholly lost the use of one of his eyes, and that the sight of the other was much impaired. His proofs were defective, but when called upon for corroborative evidence he sent on affidavits to the effect that the officers of the company in which he served were all dead, and that he did not know the address of a single living comrade. But when the roster of the Army and Navy survivors' division was assorted and placed on file it was found that a member of the company and regiment in which the claimant served was employed in the Government Post-Office at Washington. He was called up and asked if he knew the claimant. He replied in the affirmative. "What kind of a soldier was he?" queried the examiner. "Well, he might have been good enough if he could have seen anything," answered the witness, "but he was almost blind when he enlisted, and I could never account for his being passed by the examining surgeon."

A little further search revealed the fact that two officers and several comrades of the company in which the claimant had served were still alive and were residents of the very town in which the "proofless" claimant had his place of abode.

Very respectfully,

FRANK A. BUTTS,
Chief of Army and Navy Survivors' Division.

The following statement shows the amount and character of business transacted and disposed of from April 16, 1884, to January 1, 1887, in the Army and Navy survivors' division of the United States Pension Bureau:

Total of surgeons' addresses	3,378
Total of names	351,770
Total of names furnished for use in cases	53,849
Addresses supplied to names especially designated	44,420
Letters and circular letters	55,110
Circulars forwarding lists of names with post-office addresses	53,559
Calls on Adjutant-General	1,230
Calls on Navy Department	297
Calls on Surgeon-General	196

FROM APRIL 15, 1884, TO DECEMBER 31, 1884.

Date.	Number.	Cases.
April	996	129
May	3,345	664
June	8,097	1,190
July	6,061	760
August	8,070	917
September	13,239	1,328
October	12,350	1,331
November	9,465	933
December	9,362	1,106
Total	70,985	8,358

Average number of clerks employed from April 16 to December 31, 1884, 12.

1885.

Date.	Number.	Cases.	Addresses supplied to names especially designated.	Letters and circular letters.	Circulars and circular cards.	Calls on Adjutant-General.	Calls on Navy Department.	Calls on Surgeon-General.
January	9,002	1,187						
February	6,539	890						
March	6,920	910						
April	5,738	807						
May	6,059	825						
June.....	14,985	1,830		1,091	1,511			
July	11,449	1,456		984	2,729			
August.....	10,074	1,485		1,762	3,539			
September	10,986	1,668	2,561	2,586	3,563			
October	11,395	1,773	2,615	2,216	4,766			
November	12,133	1,749	3,170	2,096	2,323			
December	11,608	1,710	3,005	1,772	7,240			
Total	116,888	16,290	11,351	12,507	25,681			

Average number of clerks employed from January 1 to December 31, 1885, 25.

1886.

Date.	Addresses of surgeons.	Total of names.	Total of cases.	Addresses supplied to names especially designated.	Letters and circular letters.	Circulars and circular cards.	Calls on Adjutant-General.	Calls on Navy Department.	Calls on Surgeon-General.
January.....		12,090	2,016	3,975	2,607	1,530			
February.....		12,240	1,930	3,174	2,025	1,774			
March.....		14,286	2,527	2,442	3,304	1,072			
April.....		12,349	2,370	2,221	2,376	1,441			
May.....		12,430	2,248	2,259	3,311	4,814			
June.....		12,788	2,373	2,229	2,946	1,355			
July.....		11,912	2,006	1,854	2,033	1,463			
August.....		9,288	1,806	1,797	1,309	1,455			
September		9,170	1,664	1,651	2,099	1,116			
October	388	11,881	2,072	2,148	3,204	1,194			
November.....	604	9,883	1,686	1,786	5,855	1,934	271	76	
December.....	634	10,632	2,002	2,391	3,689	2,417	211	76	54
Total.....	1,626	138,949	24,700	27,927	34,758	21,565	482	152	54

Average number of clerks employed from January 1 to December 31, 1886, 32.

JANUARY AND FEBRUARY, 1887.

Date.	Addresses of surgeons.	Total of names.	Total of cases.	Addresses supplied to names especially designated.	Letters and circular letters.	Circulars and circular cards.	Calls on Adjutant-General.	Calls on Navy Department.	Calls on Surgeon-General.
January.....	735	11,899	2,119	2,362	4,075	1,871	430	73	70
February.....	1,017	13,049	2,382	2,780	3,770	4,442	318	72	72
Total.....	1,752	24,948	4,501	5,142	7,845	6,313	748	145	142

Average number of clerks employed for the above-named months, 41.

EXHIBIT 1.

[Where a comrade served in more than one regiment, fill in a separate card for each service.]

DEPARTMENT OF THE INTERIOR, PENSION OFFICE,

Name, _____, Inf., Cav., Art.
 Late rank, _____ Co., _____, Regt. _____.
 Vessel, _____; Squadron, _____.
 Enlisted, _____, 18—; Discharged, _____, 18—.
 Member of Post No. _____, at _____.

DEPARTMENT OF PENNSYLVANIA.

Residence, No. _____, _____ street.
 Town, _____; Co., _____; State, _____.
 Change of residence, No. _____, street.
 Date of change, _____, 188—.
 Town, _____; Co., _____; State, _____.

Please notify this office, by postal card, of any change of residence.

EXHIBIT 2.

[If in more than one regiment or vessel, fill in a card for each service.]

DEPARTMENT OF THE INTERIOR, PENSION OFFICE,
 Washington, D. C., _____, 188—.

SIR: This office will esteem it a favor if you will supply the data called for below.
 The information is desired as an addition to a record that has been established in the Pension Office of all surviving soldiers and sailors who served in the Union Army or Navy during the late war.

Very respectfully,

JOHN C. BLACK,
Commissioner.

Name, _____, Inf., Cav., Art.
 Late rank, _____, Co., _____, Regt. _____.
 Vessel, _____; Squadron, _____.
 Enlisted, _____, 18—. Discharged, _____, 18—.
 Residence, No. _____ street.
 Town, _____; Co., _____; State, _____.
 Change of residence, No. _____ street.
 Date of change, _____, 188—.
 Town, _____; Co., _____; State, _____.

Please notify this office, by postal card, of any change of residence.

[If on more than one vessel, fill in a card for each service.]

DEPARTMENT OF THE INTERIOR, BUREAU OF PENSIONS,
 Washington, D. C., _____, 188—.

SIR: This Bureau will esteem it a favor if you will supply the data called for on the other side of this card.

The information is desired as an addition to a record that has been established in the Bureau of Pensions of all surviving soldiers and sailors who served in the Union Army or Navy during the late war.

Very respectfully,

JOHN C. BLACK,
Commissioner.

U. S. NAVY.

Name, _____.
 Rank, _____,
 Ordered to U. S. S. _____.
 Date ordered, _____, 18—; Detached, _____, 18—.
 Present residence, No. _____ street.
 Town, _____; Co., _____; State, _____.
 Final discharge from U. S. N., _____, 18—.

Please notify this Bureau of any future change of residence.

Change of residence, No. _____ street.
 Town, _____; Co., _____; State, _____.

EXHIBIT 3.

[If in more than one Co., Reg't, or Vessel fill in a card for each service.]

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., _____, 188—.

Name, _____, Inf., Cav., Art.
Late rank, _____ Co. _____, Reg't _____.
Vessel, _____, Squadron, _____.
Enlisted, _____, 18—; Discharged, _____, 18—.
Present P. O. address, No. _____ Street.
City, _____, Co., _____, State, _____.
Future change of residence, No. _____ Street.
Date of change, _____, 18—.
City, _____, Co., _____, State, _____.

EXHIBIT 4.

[Where a comrade served in more than one Regiment fill in a separate card for each service.]

DEPARTMENT OF THE INTERIOR,
PENSION OFFICE.

Name, _____, Inf., Cav., Art.
Late Rank, _____ Co. _____, Reg't _____.
Vessel, _____; Squadron, _____.
Name of Commanding Officer of Co. or Vessel, _____.
Where enlisted: Town, _____; Co., _____; State, _____.
Date of enlistment, _____, 18—. Date of discharge, _____, 18—.
Taken prisoner at _____.
Date of capture, _____, 18—. Date of parole, _____, 18—.
Where confined, _____.
Present P. O. address, _____ street.
City _____; Co., _____; State, _____.

Please notify this office, by postal card, of any change of residence.

EXHIBIT 5.

DEPARTMENT OF THE INTERIOR,
PENSION OFFICE,
Washington, D. C., _____, 188—.

SIR: This office will esteem it a favor if you will supply the data called for on the other side of this slip. The information is desired as an addition to a record that has been established in the Pension Office of all surviving soldiers and sailors who served in the Union Army during the late war.

If you were at any time on duty with a battery, detachment, or any separate organization, please give full data as to length of time on duty with same. Also be particular as to dates of service in each hospital.

If you have any records in your possession, please put the letters H. R. in corner under date.

Very respectfully,

JOHN C. BLACK,
Commissioner.

(Reverse side.)

U. S. PENSION OFFICE, ARMY AND NAVY SURVIVORS' DIVISION.

Please state whether General, Post, or Field Hospital.

Name of hospital, _____.
At _____.
No. _____, ward; _____.
Name, _____.
Rank, _____; Surgeon, _____.
From _____, 18—.
To _____, 18—.

Present P. O. address:

City or Town, _____.
County, _____.
State, _____.

Please notify this office by postal card of any change of address.

Date, _____, 188—.

EXHIBIT 6.

_____ Div.
 _____, Exr.
 No. _____
 Name, _____
 Co. _____, Reg't _____
 P. O. _____
 Enlisted _____, 18____
 Discharged _____, 18____

DEPARTMENT OF THE INTERIOR,
 PENSION OFFICE,
 Washington, D. C., _____, 188____

CHIEF ARMY AND NAVY SURVIVORS' DIVISION :

Please give the present post-office address of the following-named soldiers for use in above case.

_____, _____, Div.

Name.	Company.	Regiment.	Present post-office address.

Respectfully returned to Chief _____ Division with the desired information as far as known.
 _____, 188____
 _____, Chief Army and Navy Survivors' Division.

_____ Div.
 _____, Ex'r.
 No. _____
 Name, _____
 Co. _____, Reg't _____
 P. O. _____
 Enlisted _____, 18____
 Discharged _____, 18____

DEPARTMENT OF THE INTERIOR,
 PENSION OFFICE,
 Washington, D. C., _____, 188____

CHIEF ARMY AND NAVY SURVIVORS' DIVISION :

Please furnish the names and P. O. address of officers and _____ comrades of Co. _____, _____ Reg't _____, for use in above case.

_____, _____, Div.

Name.	Rank.	Present post-office address.

Respectfully returned to Chief _____ Division with the desired information as far as known.
 _____, 188____
 _____, Chief Army and Navy Survivors' Division.

Special Examination Div.

_____, Rev'r.
 No., _____.
 Name, _____.
 Co., _____, Reg't _____.
 P. O. _____.
 Enlisted _____, 18____.
 Discharged _____, 18____.

DEPARTMENT OF THE INTERIOR,
 BUREAU OF PENSIONS,
 Washington, D. C., _____, 188—.

CHIEF ARMY AND NAVY SURVIVORS' DIVISION:

Please give the present post-office address of the following-named soldiers for use in above case,
Chief Special Examination Division.

Name.	Company.	Regiment.	Present post-office address.

Respectfully returned to Chief Special Examination Division with the desired information as far as known.

Chief Army and Navy Survivors' Division.

_____, 188—.

Reverse side:

WASHINGTON, D. C., _____, 188—.

For the information of the special examiner to whom this case has been referred for investigation, the accompanying list of officers and comrades who served in the same military organization with the claimant about whom inquiry is to be made, together with their last known post-office addresses, is furnished. The special examiner will not confine his inquiries to this list of comrades, but will seek out others if necessary.

Chief of Division.

Special examination div.

_____, Rev'r.
 No _____.
 Name, _____.
 Co. _____ Reg't _____.
 P. O. _____.
 Enlisted _____, 18____.
 Discharged _____, 18____.

DEPARTMENT OF THE INTERIOR,
 BUREAU OF PENSIONS,
 Washington, D. C., _____, 188—.

CHIEF ARMY AND NAVY SURVIVORS' DIVISION:

Please furnish the names and P. O. addresses of officers and _____ comrades of Co. _____, Reg't _____, for use in above case.

Chief Special Examination Division.

Name.	Rank.	Present P. O. address.

Respectfully returned to chief special examination division with the desired information as far as known.

Chief Army and Navy Survivors' Division.

_____, 188—.

(Reverse side :)

WASHINGTON, D. C., _____, 188—.

For the information of the special examiner to whom this case has been referred for investigation, the accompanying list of officers and comrades who served in the same military organization with the claimant about whom inquiry is to be made, together with their last known post-office addresses, is furnished. The special examiner will not confine his inquiries to this list of comrades, but will seek out others if necessary.

Chief of Division.

EASTERN DIVISION.

Report of the eastern division, Bureau of Pensions, on the methods of business and work, as requested by Select Senate Committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., April 1, 1887.

General JOHN C. BLACK, *Commissioner of Pensions* :

SIR : In response to your order directing the chiefs of divisions in the Bureau of Pensions to furnish certain information pertaining to the amount and character of business pending and transacted in their divisions for the years 1884, 1885, 1886, and for the months of January and February, 1887, called for by the Hon. F. M. Cockrell, chairman of the United States Senate Select Committee, in a communication addressed to the Hon. L. Q. C. Lamar, Secretary of the Interior, dated March 18, 1887, a copy of which was by you transmitted to this division March 23, 1887, I have the honor in compliance therewith to submit the following report.

Very respectfully,

W. J. HILLIGOSS,
Chief of Eastern Division.

Statement showing in detail the methods of transacting business in the eastern division of the Bureau of Pensions, in the Department of the Interior, beginning with the receipt of the business matter in the eastern division, and then showing in consecutive order the various steps taken by the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

The claim having been received either from the record division or from the law division, as the case may be, it goes to the pending files of this division, and withdrawn to be put in the hands of an examiner, who at once examines it as to the proper execution of the declaration and sufficiency of the allegations.

If insufficient, the claimant and attorney are so notified, and the case is sent to the pending files to await further action on their part.

If sufficient, the claimant and his attorney are given the number of the claim, and notified that it will be settled as soon as possible.

The examiner then, in blanks prepared for the purpose, calls on the Adjutant and Surgeon Generals, U. S. Army, for a complete military history and hospital treatment of the claimant, and at the same time the claimant is ordered to appear for examination before a board of surgeons most convenient to him, this last order being addressed to the attorney, if there is one; if there is not, direct to the claimant.

On the receipt of the reports from the Adjutant and Surgeon Generals, U. S. Army, the examiner notifies the attorney or claimant that the case is now ready for consideration, and calls on one of them, usually the attorney, for all the evidence that, in his judgment, is necessary to complete the claim.

It may be that in a gunshot-wound case the allegations of the claimant are sustained by the record, in which event the certificate of the board of surgeons describing and locating the wound and rating the degree of disability is all that is required in such cases.

If there is no record the examiner requires the claimant, through his attorney, to furnish the testimony of officers or comrades as to origin in service and line of duty, and of the surgeon or assistant surgeon for treatment in service, which, if satisfactory, completes the case.

In all cases where officers and comrades testify as to origin a call upon the Adjutant-General, U. S. Army, is necessary to ascertain whether or not such affairs were present or absent at the time indicated in the affidavits, together with the location of the command at that date.

In disease cases of record the same course is adopted, and in addition the best evidence obtainable as to condition at discharge and each year since, the attorney being invariably furnished with the necessary requirements by the examiner.

In disease cases not of record, testimony as in the cases of gunshot wounds not of record is required as to origin in service and line of duty and treatment therefor in service, together with the best obtainable evidence showing claimant's condition at discharge and each year since. In all cases an examination by a board of surgeons, or if that is impracticable, by some surgeon designated for that purpose is necessary, this class of cases being known as invalid.

The basis of a widow's title to pension is an invalid right; that is, the soldier through whom the right to pension is claimed must have contracted a disability in

the military service of the United States, and under such circumstances as would have entitled him to a pension, and died by reason of said disability either in the service or since his discharge.

When a soldier's right to a pension has been established to give title to his widow it must appear, first, that he died on a certain date of a wound, injury, or disease contracted in the service; and, second, that the claimant was his lawful wife when he died; therefore in such cases the examiner requires the claimant to perfect the soldier's claim, if that has not already been done, and next to furnish proof of marriage, dates of birth and death of children, if any, and she still continues his widow unless a short time has elapsed since death of soldier and the filing of her declaration, and in all such cases the death of the soldier must be shown to have been due to disability contracted in the service.

In that class of cases known as dependent, the death of the soldier being shown, the examiner further requires proof of the celibacy of the soldier, dependence, in whole or in part, at the date of the soldier's death, and that she is the mother of the soldier.

A mass of proof is required in such cases, and it can readily be seen that the amount of correspondence necessary to collect sufficient evidence for the proper and equitable adjustment of the claim consumes long periods of time and necessarily tries to the utmost the patience of the parties interested.

All cases are jacketed, on one side of which are given the number, the name, service, post-office address, dates of enlistment and discharge, the name of the disease or disability on account of which pension is claimed, and the name and post-office of attorney.

The examiner notes briefly but plainly on the reverse side of the jacket the date and character of all calls made, and as each requirement is complied with it is erased, but not sufficiently to make it illegible.

When the evidence is complete the examiner briefs the case and submits it for "admission" or rejection.

The chief of division sends it to the board of review, and unless the case is sent back to him as improperly submitted, his connection with such claim ceases.

If improperly submitted the claim is returned for readjudication, the points of variance being indicated on a slip attached, calling attention to what is considered further requirements in the case.

Statement showing the principal items of business transacted in the eastern division of the Bureau of Pensions, Department of the Interior.

The principal item of business transacted in the eastern division of the Bureau of Pensions consists in the adjudication of the claims of invalids, widows, and dependent relations for pension, and the increase and restoration of such pensions of all applicants on account of service in commands organized and accredited to the States of Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, and Delaware.

This work of itself comprises the assimilation of a vast amount of evidence which, to the uninitiated, would ever remain an unsolved problem; yet so well are the various parts of the official machinery adapted to each other that with a rare precision each piece, however insignificant, adapts itself to its allotted place.

So great though is the demand from all sources, Members of Congress, attorneys, claimants, and persons wholly unconnected with the case, for information as to its status, further requirements, and final favorable action, which have to be answered, that in this division, numbering 138 employés, 87 only are regularly engaged in the examination and adjudication of cases, 13 employed on the files, while a miscellaneous section of the best equipped men, responding to calls for information in cases long since rejected, in increase cases, in claims for rating and restoration, has become obligatory, to the great detriment of the service, and resulting in great delay to the speedy and just adjudication of claims.

Unfortunately there is no remedy so long as any one can prefer a request for information respecting this or that case.

As a consequence the overworked clerks are worked to their utmost, cases are delayed by causes beyond their control, and the unsatisfied claimant or attorney proclaims the utter inefficiency of the public service.

A little charity and a little patience would accomplish much more than all the complaints now uttered, which are ever ready upon the lips of interested parties.

The following statement shows the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified, in the eastern division of the Bureau of Pensions, Department of the Interior :

EMPLOYÉ DOING THE MOST.--MAXIMUM.

Character of business.	Calendar Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Cases submitted	1884	26	42	42	47	50	42	15	33	27	49	25	27
Do	1885	30	19	5	29	36	60	30	23	39	35	31	7
Do	1886	12	22	40	41	59	49	44	39	33	29	21	17
Do	1887 to Mar.1	30	36										

EMPLOYÉ DOING THE LEAST.--MINIMUM.

Cases submitted	1884	5	3	6	6	6	6	3	3	7	2	1	2
Do	1885	2	2	2	3	2	4	3	5	1	3	3	9
Do	1886	10	4	5	8	7	8	7	8	5	6	4	5
Do	1887 to Mar.1	3	6										

In this connection it is proper to add that the figures embodied in this statement by no means indicate the amount of work necessary before a case can be submitted.

To illustrate, by an inspection of the reports for January and February of this year this singular state of facts is seen to exist.

One examiner during that period writes 361 letters, in each of which the status of the case is given, and 195 circular letters, and as a result he is credited with 43 cases submitted, while another with 130 letters and 870 circular letters gets credit only for 8 cases; and yet while the record shows each to be industrious the results in each case are widely different,—and can be explained only by saying that the difficulties in the way of obtaining satisfactory testimony were greater in one case than in the other.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the eastern division of the Bureau of Pensions, Department of the Interior :

Calendar year.	Number of employés.	Average number of days present.	Average number of hours employed daily.	Number by proxy.
1884.....	174	273	2,047	None.
1885.....	157	273	2,047	Do.
1886.....	143	273	2,047	Do.
1887 (to March 1)	144	48	360	Do.

As to the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the eastern division of the Bureau of Pensions, Department of the Interior, during the periods specified, after an exhaustive research, it is found to be impracticable to comply with this requirement. The daily changes in the *personnel* of the division explain why it cannot be done.

MIDDLE DIVISION.

Report of the middle division, Bureau of Pensions, on the methods of business and work as requested by Senate select committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., April 2, 1887.

SIR: In transmitting the data contained in the records of this division for use in the report asked for by the Hon. F. M. Cockrell, chairman Senate select committee, I beg to submit the following statement by way of explanation and comment:

I know of no records which can be regarded as affording data from which the "maximum and minimum amount of business transacted and disposed of" by an employé can be definitely determined.

Who disposed of the greatest number of claims or wrote the greatest number of letters is a matter of record. A fair comparison, however, can be made only between persons engaged upon the same kind of work for a long period of time.

Usually the one accomplishing least in any given month is the one who has not been engaged upon the work long enough to have become familiar with it. As a rule, the one who accomplishes most does not do his work as well as those who accomplish less.

One who accomplishes least, as shown by the data, may be of more value to the Bureau than some who appear to have accomplished more.

One who knows when and how to dispose of claims, if he or she apply that knowledge with reasonable diligence, is of more value than one showing, apparently, more diligence but possessing less knowledge.

One who knows when a letter should be written and what to write is of more value than one who writes more letters, some of which are unnecessary.

A very careful clerk may use his head too much. A very careless one may use his hands too much.

I know of no way to secure the proper use of both in all cases and at all times.

Upon examination of the records of this division for a period of thirty-eight months I find that it fell to the lot of one clerk, now engaged on other work, to represent the "minimum" three different months. One represented the "maximum" nearly every month during said period.

The latter disposed of so much work each month and year that, so far as rapidity is concerned, his work may be regarded as phenomenal. To compare his record with that of any other clerk engaged on the same kind of work in this division or in the Bureau would, I think, be unjust to others.

Respectfully submitted.

Hon. JOHN C. BLACK,
Commissioner of Pensions.

WM. P. DAVIS,
Chief Middle Division.

Statement of the middle division of the Bureau of Pensions, showing the methods adopted in transacting the principal business matters, beginning with the receipt of the matter by the Department or by any of the agents of the Department, and giving in consecutive order the various steps taken by each of such business matters through the various divisions of the Office and the various Bureaus and divisions of such Bureaus, and employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

Upon the receipt of a claim for pension, the same having been previously recorded and given a number by another branch of the Office, calls are made upon the War Department for a report of the soldier's military service, and, in claims made by invalid soldiers, a medical examination is ordered. If the reports made in answer to such calls do not afford sufficient proof to warrant a settlement of the claim, calls are made for such further evidence as may be deemed necessary. Upon the receipt of such evidence as, in the opinion of the chief of division, will justify final action, the claim is submitted to the board of review for consideration. If the submission be for allowance and recommendation be concurred in, this division ceases to have custody of the claim. If the recommendation be not concurred in, the claim is given such further consideration by this division as may be deemed proper, and in the same manner and with a view to the same end as though the same had not been submitted. If the recommendation be for rejection and be concurred in (certificate never having issued), the division continues to have custody of the claim.

Very respectfully,

WM. P. DAVIS,
Chief of Division.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below in the middle division of the Bureau of Pensions, Department of the Interior :

	Pending original.	Pending increase, restoration, miscellaneous.	Rejected original.	Total.	Amount on hand pending and undisposed of at close of the calendar year.
1884.					
On hand January 1	60,903	7,024	23,364	91,291	67,927
Filed and reopened	12,794	11,509	.....	24,303	.....
Admitted	8,288	6,516	.....	14,804	.....
Rejected	4,083	4,915	.....	8,998	.....
1885.					
On hand January 1	61,326	7,102	25,475	93,903	68,428
Filed and reopened	11,686	23,310	.....	34,996	.....
Admitted	9,201	8,974	.....	18,175	.....
Rejected	4,907	7,538	.....	12,445	.....
1886.					
On hand January 1	58,904	13,900	*28,719	101,523	72,804
Filed and reopened	15,500	23,535	.....	39,035	.....
Admitted	9,863	10,649	.....	20,512	.....
Rejected	3,937	10,703	.....	14,640	.....
1887.					
On hand January 1	60,604	16,083	*30,018	106,705	76,687
Filed and reopened January and February	2,431	5,256	.....	7,687	.....
Admitted January and February	2,194	2,246	.....	4,440	.....
Rejected January and February	148	1,302	.....	1,450	.....
On hand March 1	60,693	17,791	*29,905	108,389	78,464

* Estimated.

This table, owing to lack of sufficient data, is only approximately correct.

Work report of the middle division, Bureau of Pensions.

	Number of employes.	Examiners.	Original claims submitted.	Average number of claims to examiner.	Increase claims submitted.	Letters.	Circulars.	Lowest number of claims submitted by an examiner.	Highest number of claims submitted by an examiner.
1884.									
January	193	131	2,136	16 ⁴¹ / ₁₃₁	1,472	1,312	21,860	3	40
February	193	131	1,796	13 ⁹⁰ / ₁₃₁	587	13,470	19,807	4	47
March	193	128	1,783	13 ¹¹⁹ / ₁₂₈	931	14,183	22,327	4	42
April	191	132	1,906	14 ⁵⁴ / ₁₃₂	869	14,516	24,147	4	38
May	184	125	1,955	15 ⁸⁶ / ₁₂₅	758	13,395	19,056	3	49
June	182	123	1,619	13 ²⁶ / ₁₂₃	748	10,255	12,391	1	59
July	181	122	1,197	9 ⁶⁹ / ₁₂₂	670	7,634	13,060	3	35
August	178	119	1,284	10 ¹¹⁹ / ₁₁₉	490	9,367	15,600	2	42
September	180	109	1,148	10 ⁵⁸ / ₁₀₉	785	10,112	18,567	2	42
October	182	118	1,025	8 ⁸¹ / ₁₁₈	843	12,275	19,023	1	44
November	182	125	1,163	9 ³⁸ / ₁₂₅	811	9,340	15,122	1	44
December	178	129	1,361	10 ⁷¹ / ₁₂₉	452	12,538	17,866	2	44
1885.									
January	178	124	1,198	9 ⁸²¹ / ₁₂₄	1,000	14,068	19,359	1	39
February	180	128	929	7 ³³ / ₁₂₈	619	11,653	19,850	1	39
March	179	122	1,198	9 ¹⁰⁰ / ₁₂₂	1,108	12,087	19,464	1	38
April	186	124	1,130	9 ¹²⁴ / ₁₂₄	1,065	14,141	19,790	2	36
May	183	126	1,549	12 ⁸⁷ / ₁₂₆	1,582	13,289	21,083	2	37
June	170	120	1,776	14 ⁹⁶ / ₁₂₀	1,417	13,490	19,876	4	37
July	167	117	1,641	14 ¹⁴ / ₁₁₇	1,330	13,461	25,737	4	42
August	157	112	1,254	11 ²² / ₁₁₂	563	10,511	15,115	3	39
September	153	98	1,404	14 ³² / ₉₈	862	10,315	14,623	5	50
October	159	105	1,606	15 ³¹ / ₁₀₅	1,577	13,704	19,344	6	50
November	158	105	1,478	14 ⁵ / ₁₀₅	1,364	12,579	19,183	3	42
December	158	102	1,605	15 ⁷⁵ / ₁₀₂	1,587	11,597	18,078	5	61

Work report of the middle division, Bureau of Pensions—Continued.

	Number of employees.	Examiners.	Original claims submitted.	Average number of claims to examiner.	Increase claims submitted.	Letters.	Circulars.	Lowest number of claims submitted by an examiner.	Highest number of claims submitted by an examiner.
1886.									
January.....	175	117	1,562	13 ⁴¹ / ₁₁₇	1,233	12,893	17,360	2	45
February.....	156	100	1,555	15 ⁵⁵ / ₁₀₀	1,434	11,736	16,567	3	74
March.....	154	101	1,605	15 ⁹⁰ / ₁₀₁	1,630	15,570	20,807	5	80
April.....	158	100	1,827	18 ²⁷ / ₁₀₀	1,540	13,781	23,909	5	63
May.....	163	105	1,911	18 ²¹ / ₁₀₅	1,649	15,484	21,341	2	99
June.....	167	107	2,333	21 ⁸⁶ / ₁₀₇	2,189	15,308	20,918	4	123
July.....	163	105	1,712	16 ³² / ₁₀₅	2,800	15,056	21,036	4	98
August.....	158	98	1,428	14 ⁵⁶ / ₉₈	1,211	13,478	19,400	6	33
September.....	161	100	1,434	14 ³⁴ / ₁₀₀	1,295	12,663	18,629	4	99
October.....	158	98	1,624	16 ⁵⁶ / ₉₈	1,336	13,651	17,960	3	92
November.....	164	107	1,235	11 ⁵⁸ / ₁₀₇	1,063	14,266	20,146	3	66
December.....	169	104	1,282	12 ³⁴ / ₁₀₄	1,082	13,620	18,730	2	68
1887.									
January.....	174	101	1,859	18 ⁴¹ / ₁₀₁	1,321	15,015	25,147	1	100
February.....	170	100	1,878	18 ⁷⁸ / ₁₀₀	1,332	15,246	22,675	5	104

The following statement shows the principal items of business transacted in the middle division of the Bureau of Pensions, Department of the Interior:

Month.	Number of Congressional inquiries received—			
	1884.	1885.	1886.	1887.
January.....	2,841	2,592	2,500	3,265
February.....	2,595	2,204	2,180	2,541
March.....	2,998	1,841	2,768	.....
April.....	2,402	1,386	2,458	.....
May.....	2,134	651	2,279	.....
June.....	3,190	722	2,454	.....
July.....	1,417	498	2,342	.....
August.....	608	505	1,245	.....
September.....	709	644	589	.....
October.....	673	705	879	.....
November.....	470	625	673	.....
December.....	2,682	2,006	2,133	.....
Total.....	22,719	14,379	22,501	5,806

Month.	Number of pieces of evidence and letters referring to claims received—			
	1884.	1885.	1886.	1887.
January.....	24,963	30,029	30,557	43,675
February.....	25,245	27,275	32,246	40,185
March.....	28,240	33,404	37,440	.....
April.....	28,776	35,081	36,175	.....
May.....	25,300	33,006	38,520	.....
June.....	25,269	33,103	41,152	.....
July.....	26,514	31,764	32,492	.....
August.....	32,194	26,890	32,480	.....
September.....	35,893	28,879	32,886	.....
October.....	36,050	29,428	35,560	.....
November.....	23,411	29,098	35,952	.....
December.....	32,878	32,106	45,593	.....
Total.....	344,733	370,063	431,053	83,800

WESTERN DIVISION.

Report of the western division, Bureau of Pensions, on the methods of business and work, as requested by Senate select committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., April 1, 1887.

SIR: In compliance with your instructions, I have the honor to submit herewith a statement showing, as far as can be shown, the amount and character of the business transacted in the division and the methods of transacting the same, as called for by the select committee of the United States Senate appointed in pursuance of the resolution of the Senate adopted March 3, 1887.

Very respectfully,

A. A. ASPINWALL,
Chief of Western Division.

Hon. JOHN C. BLACK,
Commissioner of Pensions.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the western division of the Bureau of Pensions:

Character of business.	Pending original claims.	Pending increase, restoration and miscellaneous claims.	Rejected original claims.	Total.	Amount on hand pending and undisposed of at close of the calendar year.
1884.					
On hand January 1.....	67,367	9,398	22,902	99,667	76,765
Filed and reopened.....	12,405	17,134	.....	29,539	.....
Admitted.....	11,611	9,652	.....	21,263	.....
Rejected.....	3,717	6,003	.....	9,720	.....
1885.					
On hand January 1.....	64,444	10,977	25,825	101,146	75,321
Filed and reopened.....	12,570	30,693	.....	43,263	.....
Admitted.....	12,998	12,169	.....	25,167	.....
Rejected.....	4,071	10,793	.....	14,864	.....
1886.					
On hand January 1.....	59,945	18,608	*24,306	102,859	78,553
Filed and reopened.....	15,298	32,550	.....	47,848	.....
Admitted.....	12,789	15,980	.....	28,769	.....
Rejected.....	3,431	14,640	.....	18,071	.....
1887.					
On hand January 1.....	59,023	20,538	*25,723	105,284	79,561
Filed and reopened in January and February.....	2,241	7,371	.....	9,612	.....
Admitted in January and February.....	2,074	3,225	.....	5,299	.....
Rejected in January and February.....	162	1,859	.....	2,021	.....
On hand March 1, 1887.....	59,028	23,825	*23,709	106,562	82,853

* Estimated.

This table, owing to lack of sufficient data, is only approximately correct.

Statement showing the principal items of business transacted in the western division of the Bureau of Pensions, Department of the Interior.

This division has charge of the detail work connected with the adjudication of all pension claims which are based upon disabilities incurred during the war of the rebellion by soldiers who served in the volunteer force of the United States in organizations which were raised in the Territories and the following States, viz: Illinois, Indiana, Iowa, Wisconsin, Minnesota, Nebraska, Kansas, Colorado, California, Oregon, and Nevada.

Statement showing in detail the methods of transacting business in the western division of the Bureau of Pensions, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the western division, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

On receipt of claims for adjudication by this division a count of the number received is made and recorded under the proper classification. A claim thus noted is at once sent to the files, where it is charged to an examiner on a slip, which is retained in the files, and which slip contains the number and title of the claim, the name and service of the soldier, and date the claim is given to the examiner.

On receiving the claim the examiner proceeds, without delay, to make the necessary calls on the War Department for its record of the soldier's service and medical treatment, and on the claimant, through his attorney, for such evidence as is deemed requisite to complete the claim. In the cases of invalid claimants an order for a medical examination is also issued. The claim is then sent back to the files to await the evidence and reports called for.

It is of very frequent occurrence, however, that in the mean time the claim is sent to the examiner that letters of inquiry relative to the claim may be answered.

The receipt of any portion of the evidence called for also causes the claim to be taken from the files to the examiner, in order that such evidence may be applied to the claim, and the condition of the claim as affected by the evidence received be furnished claimant or his attorney.

When, in the opinion of the examiner, all the evidence necessary to the proper adjudication of the claim has been received, the claim is briefed and submitted by the chief of division to the board of review, the action thus taken being entered on the division records.

The examiner's connection with the claim then ceases, except in claims submitted to the board of review for rejection, in which case, if the board of review approve the action taken, the claim is returned to the examiner that he may notify the claimant and his attorney of the decision reached; also in cases where the claim is returned by the board of review for further evidence.

In addition to the force employed in the adjudication of claims, there is a section of this division known as the miscellaneous section, whose work it is to answer miscellaneous inquiries relative to claims which have been once adjudicated and in which letters of complaint are received.

Very respectfully,

A. A. ASPINWALL,
Chief of Western Division.

Work report of the western division of the Bureau of Pensions.

Months.	Number of employes.	Examiners.	Original claims submitted.	Average number to examiner.	Increase claims submitted.	Letters written.	Circulars.	Lowest number of claims submitted by an examiner.	Highest number of claims submitted by an examiner.
1884.									
January.....	(*)	135	1,910	14.14	1,198	*	*	2	39
February.....		135	1,679	11.54	1,038			1	32
March.....		138	1,778	12.16	1,283			1	48
April.....		138	2,084	15.10	1,510			2	63
May.....		133	1,993	14.38	1,290			1	45
June.....		135	1,992	14.74	1,509			1	61
July.....		125	1,186	9.49	1,073			1	27
August.....		122	1,038	8.50	1,063			1	35
September.....		117	1,152	9.84	1,058			1	32
October.....		123	1,172	9.53	1,107			1	31
November.....		119	1,165	9.79	1,216			1	39
December.....		128	1,638	12.79	831			1	44

* There is no record of the number of employes or of letters and circulars written prior to January 1, 1886.

Work report of the western division of the Bureau of Pensions—Continued.

Months.	Number of employés.	Examiners.	Original claims submitted.	Average number to examiner.	Increase claims submitted.	Letters written.	Circulars.	Lowest number of claims submitted by an examiner.	Highest number of claims submitted by an examiner.
1885.									
January		122	1,280	11.96	1,216			2	33
February		123	1,229	9.99	818			1	32
March		123	1,575	12.72	1,191			1	40
April		127	1,402	11.04	1,527			1	46
May		126	1,643	13.04	1,441			1	46
June		121	1,857	15.71	2,685			2	43
July		112	1,485	13.68	1,524			1	32
August		112	1,108	9.89	1,783			1	28
September		107	1,470	13.73	1,287			2	34
October		103	1,837	17.83	2,482			2	51
November		102	2,273	22.28	2,589			2	73
December		98	1,799	18.36	2,710			1	60
1886.									
January	148	100	2,635	26.35	1,471	8,073	20,186	1	55
February	141	94	2,071	22.03	1,967	7,420	16,789	1	250
March	140	92	1,927	20.94	2,689	8,585	22,392	4	44
April	137	89	2,028	22.79	3,707	8,770	19,157	2	53
May	143	91	1,886	20.90	1,568	9,036	17,899	1	41
June	136	92	2,652	28.93	1,551	8,177	15,352	1	89
July	144	92	1,648	17.91	1,545	9,278	17,046	1	49
August	142	81	1,526	18.83	2,491	6,799	15,938	1	56
September	141	93	1,479	15.88	1,644	7,250	14,110	1	46
October	140	84	1,732	20.06	2,410	8,361	16,524	1	54
November	149	81	910	11.23	1,300	7,474	17,107	1	38
December	149	83	1,074	13	2,241	9,361	15,724	1	37
1887.									
January	147	79	1,335	17	1,862	8,652	16,463	2	46
February	146	84	1,690	20.01	2,673	8,771	15,363	1	51

SOUTHERN DIVISION.

Report of the southern division, Bureau of Pensions, on the methods of business and work, as requested by the Senate Select Committee and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., April 1, 1887.

SIR: In compliance with your instructions, I have the honor to transmit herewith statements showing the amount and character of the business transacted in this division during the periods therein stated, the principal business considered, and the methods pursued in its transaction.

Very respectfully,

D. W. WEAR,
Chief Southern Division.

Hon. JOHN C. BLACK,
Commissioner of Pensions.

The following statement shows the amount and character of business received transacted, and disposed of during the period, and on hand, pending, and undisposed of, at the dates specified below, in the southern division of the Bureau of Pensions :

Character of business.	Pending original.	Pending increase, restoration, miscellaneous.	Rejected original.	Total.	Amount on hand, pending, and undisposed of at close of calendar year.
1884.					
On hand January 1	50,050	3,087	17,414	70,551	53,137
Filed and reopened	8,265	4,255	.....	12,520	.....
Admitted	4,096	2,375	.....	6,471	.....
Rejected	4,222	1,868	.....	6,090	.....
1885.					
On hand January 1	49,997	3,099	21,035	74,131	53,096
Filed and reopened	10,310	9,788	.....	20,098	.....
Admitted	5,949	3,580	.....	9,529	.....
Rejected	4,052	3,036	.....	7,088	.....
1886.					
On hand January 1	50,306	6,271	*23,543	80,121	56,577
Filed and reopened	8,766	9,270	.....	18,046	.....
Admitted	6,368	4,437	.....	10,805	.....
Rejected	3,386	5,106	.....	8,492	.....
1887.					
On hand January 1	49,328	2,998	*25,850	81,176	55,326
Filed and reopened, January and February	1,395	2,226	.....	3,621	.....
Admitted, January and February	1,019	1,023	.....	2,042	.....
Rejected, January and February	131	688	.....	819	.....
On hand March 1	49,573	6,513	25,940	82,026	56,086

* Estimated.

This table, owing to lack of sufficient data, is only approximately correct.

Work report of the southern division.

	Number of employes.	Examiners.	Original claims submitted.	Average number of claims to examiner.	Increase claims submitted.	Letters.	Circulars.	Lowest number of claims submitted by an examiner.	Highest number of claims submitted by an examiner.
1884.									
January	138	105	1,206	11 ⁵¹ / ₁₀₅	422	9,361	19,110	0	24
February	136	102	1,232	12 ¹⁰² / ₁₀₂	389	8,725	15,311	2	44
March	139	103	1,133	11	316	10,126	17,781	1	34
April	143	106	1,241	11 ⁷⁵ / ₁₀₆	269	10,078	17,170	1	29
May	140	105	1,162	11 ¹⁰⁵ / ₁₀₅	332	9,442	16,199	1	28
June	138	103	1,130	10 ¹⁰³ / ₁₀₃	143	8,732	14,431	0	28
July	136	103	702	6 ⁹⁴ / ₁₀₃	138	6,727	12,153	2	21
August	123	93	583	6 ⁹³ / ₉₃	231	6,632	9,905	1	21
September	123	93	670	7 ⁹³ / ₉₃	397	6,611	9,967	0	23
October	125	93	629	6 ⁹³ / ₉₃	497	7,094	12,239	1	21
November	129	96	632	6 ⁹⁶ / ₉₆	289	5,509	9,483	0	21
December	133	99	735	7 ⁹⁹ / ₉₉	424	8,379	12,059	0	17
1885.									
January	136	101	805	7 ⁹⁸ / ₁₀₁	312	8,471	11,992	1	24
February	133	98	618	6 ⁹⁸ / ₉₈	223	6,209	10,583	1	20
March	132	98	816	8 ⁹⁸ / ₉₈	415	7,225	10,441	0	26
April	131	97	742	7 ⁹⁷ / ₉₇	549	8,421	14,280	0	25
May	127	96	974	10 ⁹⁶ / ₉₆	594	8,096	13,711	1	26
June	124	94	1,215	12 ⁹⁴ / ₉₄	466	7,450	13,777	1	34

Work report of the southern division—Continued.

	Number of employés.	Examiners.	Original claims submitted.	Average number of claims to examiner.	Increase claims submitted.	Letters.	Circulars.	Lowest number of claims submitted by an examiner.	Highest number of claims submitted by an examiner.
1885.									
July.....	124	96	1,052	10	202	6,804	8,750	2	38
August.....	122	96	790	8	511	6,688	10,423	1	23
September.....	120	92	937	10	684	7,355	13,205	2	33
October.....	118	92	1,163	12	578	8,412	14,548	1	33
November.....	120	94	1,172	12	686	7,232	13,624	1	30
December.....	116	92	1,112	12	455	6,032	11,042	1	31
1886.									
January.....	117	91	1,439	15	720	5,710	11,633	0	51
February.....	112	87	1,127	12	660	6,559	10,726	0	39
March.....	110	85	1,183	13	756	6,652	11,298	0	39
April.....	109	83	1,324	15	785	6,755	12,464	3	52
May.....	106	75	1,152	15	786	(*)	(*)	3	39
June.....	112	75	1,522	20	839	.....	.....	2	43
July.....	114	79	1,099	13	405	.....	.....	5	32
August.....	115	82	1,057	12	553	.....	.....	2	40
September.....	112	76	1,091	14	813	.....	.....	2	43
October.....	113	76	960	12	467	.....	.....	6	31
November.....	116	74	923	12	492	.....	.....	3	28
December.....	121	79	851	10	617	.....	.....	3	31
1887.									
January.....	119	75	950	12	606	.....	.....	1	37
February.....	118	76	982	12	759	.....	.....	2	32

*No record of letters and circulars was kept in this division after April 30, 1886.

Statement showing in detail the methods of transacting business in the southern division of the Bureau of Pensions in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the division, and then showing in consecutive order the various steps taken by each of such principal business matters, the employés through whose hands the same passes and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

Applications for pension having been received, jacketed, numbered, and recorded by the proper divisions of the office, are sent to the adjudicating divisions for consideration. Such cases as are sent to the southern division are properly filed and sent to examiners in their regular order. In original claims by soldiers in their own right the examiner at once calls upon the War Department for a report of the military history of the soldier and of such medical treatment as he may have received while in the service, and the claimant is directed to report to the nearest convenient board of examining surgeons for an examination. Upon receipt of reports from the War Department and of the certificates of the examining surgeons, if the case is considered complete, it is submitted to the board of review for its consideration. If further evidence is deemed necessary a call is made upon the claimant or his attorney for such evidence. Upon its receipt it is considered by the examiner, and, if satisfactory, the case is submitted to the board of review as above. If the testimony furnished is not considered satisfactory further calls are made until the case is believed to be complete. When a case is submitted for admission and the boards of review and re-review consider further evidence necessary the case is returned to this division with such instructions as are deemed proper. Calls in accordance with these instructions are made by the examiner, and upon the receipt of the evidence the claim is resubmitted. If the boards of review and rereview concur in the opinion that a claim should be admitted the case passes from the jurisdiction of this division.

In case the records of the War Department or the evidence filed shows, in the opinion of the examiner, that the case should be rejected it is submitted to the board of review, and, if the opinion of the examiner is concurred in, the case is rejected and returned to the division, where it is placed in the rejected files. If rejection is not

considered proper, the case is returned with suggestions which are followed by the examiner, the case being considered as still pending.

When it appears that the merits of a case cannot be determined from evidence furnished by the claimant in this *ex parte* method, the case is submitted, subject to the approval of the boards of review and rereview, for a special examination.

The same general course of procedure is followed in the consideration of claims of widows, minor children, and dependent relatives, although the details differ somewhat.

It will be understood that in all cases the action of the examiner is subject to the approval of the chief of the division.

Statement showing the principal items of business transacted in the southern division of the Bureau of Pensions, Department of the Interior.

1. The adjudication of claims for pension, on account of service in the late war in regiments from Maryland, the District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Texas, Arkansas, Kentucky, Tennessee and Missouri, and in the United States colored troops, and correspondence incident to such adjudication. The final action of this division in the adjudication of each case is subject to the approval of the boards of review and rereview.

2. The consideration of miscellaneous inquiries relative to claims already admitted on account of service in the above named organizations, and of communications from persons believing themselves entitled to pension on account of such service.

Respectfully transmitted.

D. W. WEAR,
Chief, Southern Division.

OLD WAR AND NAVY DIVISION.

Report of the old War and Navy division, Bureau of Pensions, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., April 2, 1887.

SIR: In compliance with instructions, I furnish herewith the information called for by the Interior Department, March 23 last, for the use of the Senate Select Committee appointed "to inquire into and examine the methods of business and work in the Executive Departments," and remain,

Very respectfully, yours,

J. AS. B. COIT,
Chief, Old War and Navy Division.

Hon. JOHN C. BLACK,
Commissioner of Pensions.

METHODS OF TRANSACTING BUSINESS.

Declaration for bounty land, or for such claims for pension as are adjudicated in this division, except for Army service in the late war, when received in the Bureau are sent at once to the mail division, after having the date of receipt stamped upon them. The records are then searched for duplicates and claims on account of the same service by persons having a prior title, and in case of all claims for service pension and other old war pension claims, search of records is made for any claim for bounty-land, which, if found, is applied to the pension claim as proof of service and disability. Claims are jacketed, numbered, and recorded, charge slips are put in the files, and their receipt is acknowledged. To this point the work is done by miscellaneous clerks. The claims then go to the examiner, by whom a medical examination is ordered if the claims are for disability pension; calls for reports relative to service where the records of the Bureau do not supply the evidence are made on the Adjutant-General, the Quartermaster-General, the Paymaster-General, Secretary of the Treasury, the Second Auditor, the Third Auditor, the Fourth Auditor, the Fifth Auditor, or the Register of the Treasury, the Secretary of the Navy, the Bureau of Equipment and Recruiting, or the Bureau of Navigation, Navy Department, or the Commandant of the Marine Corps, according to the character of the claim. If the claim is for disability, evidence of treatment for or the existence of the alleged disability in the service is called for from one of the following Bureaus, viz, the Surgeon-General of the Army or Navy, the Adjutant-General, the Second Auditor, the Third Auditor of the Treasury, or the Bureau of Navigation, Navy Department.

The claimant is notified by the examiner of any defect in the declaration, and as soon as reports of service and of treatment for disability are received, he calls upon the claimant or his attorney for the evidence required, if any, to complete the claim. Official calls made for evidence of service, &c., are recorded before they leave the division, and also the receipt of the reply; and examiners note all calls upon the back of the jacket of the claim, and note final action in a special docket. When evidence in any claim is received, the date of receipt is stamped upon it, and a record made that "evidence" in a specified claim is received, and the evidence at once sent to this division, where it is assorted, and the records searched where the number is not given, then arranged numerically or alphabetically, as required by the class of claim, stamped with the date of receipt in the division, then applied to the claim, delivered to the examiner in regular order, and the date of such delivery stamped upon the evidence. When the examiner believes the claim to be complete, or that no additional evidence can be obtained by correspondence, he arranges the evidence under a brief face, which contains the name of the claimant, his post-office address, the names of the organizations in which service has been rendered, with dates of enlistment and discharge, and a brief statement of the claimant's allegations, stating whether submitted for admission, rejection, or special examination, with the name and address of the attorney, and the fee to which he is entitled. Then the claim goes to the board of review, and from there to the special examination division, if to be investigated, and to the board of rereview if to be admitted or rejected, for action or submission to the Commissioner. From the board of rereview, a claim which is to be admitted, if for disability, goes to the medical division for decision of medical questions, then to the board of review for rating, and finally to the certificate division for issuance of certificate and notification to claimant. From the board of rereview bounty-land claims are returned to the division for issue of the warrant.

Should the board of review and rereview concur in regarding the evidence insufficient to establish the claim, it is returned to the division, indicating to the examiner the deficiency in the evidence. The division then takes the indicated course of action, or appeals therefrom to the Commissioner.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the division of Old War and Navy, in the Bureau of Pensions:

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
<i>Regular Army.</i>													
Invalid, original...	4,288	1,269	1,197	4,360	1,304	1,477	4,187	1,399	1,168	4,418	213	279	4,352
Invalid, increase ..	1,127	1,170	1,264	1,033	1,842	1,684	1,191	1,911	1,542	1,560	358	351	1,567
Widows, original..	1,539	449	354	1,634	458	331	1,761	503	494	1,770	31	59	1,742
Widows, increase..	6	16	22	.....	22	17	5	22	16	11	4	2	13
<i>Old War.</i>													
Invalid, original...	1,468	377	210	1,635	247	329	1,553	346	141	1,758	67	26	1,799
Invalid, increase ..	296	343	364	375	539	546	368	484	148	704	79	35	748
Widows, original..	299	116	94	321	120	87	354	166	112	408	18	9	417
Widows, increase..	2	7	9	.....	9	9	.....	.....	.....	.....	.....	.....	.....
<i>Navy.</i>													
Invalid, original...	2,578	776	497	2,857	820	586	3,091	833	604	3,320	192	157	3,355
Invalid, increase ..	298	394	331	361	595	335	621	560	711	470	128	101	497
Widows, original..	661	276	215	722	288	186	824	328	226	926	72	34	964
Widows, increase..	.....	11	11	.....	12	12	.....	.....	.....	.....	.....	.....	.....
1812.													
Survivors, original	83	28	11	100	45	67	78	30	33	75	2	3	74
Survivors, reissue ..	.....	1	1	.....	3	3	.....	.....	.....	.....	.....	.....	.....
Widows, original..	865	498	476	887	386	640	633	298	386	545	52	32	565
Widows, reissue ..	.....	1	1	.....	4	4	.....	.....	.....	.....	.....	.....	.....
<i>Bounty Land.</i>													
Original.....	2,399	214	1,652	961	181	169	973	164	115	1,022	33	24	1,031
Duplicate.....	86	30	16	100	39	11	128	17	12	133	4	4	133

Mexican war.—A large number of Mexican war claims were filed in this Bureau, but they were not transferred to this division for adjudication until March 15, 1887.

Work performed by examiners.

Month.	1884.				1885.				1886.				1887.			
	Examiners on roll.	Claims submitted.	Letters.	Circulars.	Examiners on roll.	Claims submitted.	Letters.	Circulars.	Examiners on roll.	Claims submitted.	Letters.	Circulars.	Examiners on roll.	Claims submitted.	Letters.	Circulars.
January	35	581	2,701	3,469	30	475	2,746	3,542	27	676	2,861	1,820	32	728	3,166	3,337
February	34	590	2,274	2,613	31	488	2,264	2,627	25	464	1,692	1,390	33	697	2,867	3,172
March	34	517	2,576	2,915	31	577	1,918	2,880	24	539	2,619	1,896	.....	.....	.....	.....
April	32	615	2,752	3,527	31	612	2,309	2,761	25	600	2,446	1,724	.....	.....	.....	.....
May	35	626	2,681	2,788	32	757	2,000	2,226	27	693	2,056	2,095	.....	.....	.....	.....
June	33	517	2,218	2,702	30	644	2,232	1,882	30	906	2,017	1,953	.....	.....	.....	.....
July	31	*287	1,934	2,054	28	551	2,113	2,024	28	532	1,758	2,112	.....	.....	.....	.....
August	32	568	1,927	1,953	28	414	2,207	1,996	25	458	1,643	1,500	.....	.....	.....	.....
September	32	357	2,234	2,674	27	782	1,760	1,857	26	552	1,793	1,813	.....	.....	.....	.....
October	32	325	2,309	2,269	27	727	2,204	2,040	30	665	2,639	2,392	.....	.....	.....	.....
November	32	324	1,639	2,553	27	709	2,118	2,191	31	592	2,872	2,531	.....	.....	.....	.....
December	32	427	2,262	3,069	28	636	2,097	1,899	30	534	2,996	1,883	.....	.....	.....	.....

* Employed about half month on files.

This list includes chief and assistant chief of division and chiefs of sections, none of whom were engaged in examining.

Work performed by miscellaneous clerks.

Month.	1884.			1885.			1886.			1887.		
	No. of clerks on roll.	Letters.	Circulars.	No. of clerks on roll.	Letters.	Circulars.	No. of clerks on roll.	Letters.	Circulars.	No. of clerks on roll.	Letters.	Circulars.
January	24	497	1,414	22	569	1,315	24	875	1,166	18	487	513
February	24	354	1,314	21	332	867	25	274	850	19	543	515
March	23	420	1,316	22	542	1,651	19	654	1,543	.....	.....	.....
April	23	417	1,647	22	657	1,261	18	513	1,446	.....	.....	.....
May	23	307	1,209	22	695	1,719	19	425	1,064	.....	.....	.....
June	24	455	1,232	23	638	1,113	18	313	674	.....	.....	.....
July	*24	439	1,360	22	760	1,398	19	297	790	.....	.....	.....
August	22	205	1,422	26	706	394	18	386	548	.....	.....	.....
September	21	315	1,580	27	166	1,020	18	238	747	.....	.....	.....
October	22	363	2,334	26	468	1,402	18	298	1,158	.....	.....	.....
November	21	257	2,470	26	306	1,045	16	230	439	.....	.....	.....
December	22	379	1,085	25	380	904	16	270	363	.....	.....	.....

* Part of month engaged on files.

It is impracticable to report the amount of work performed by the clerks designated as "Miscellaneous," who are engaged in recording, searching records, drawing claims from or returning, them to the files, assorting, stamping, and applying evidence, preparing reports, in miscellaneous correspondence, &c., their duties being so various in character that no common standard of measure can be applied.

All claims for pension on account of disability or death due to service in all wars and in time of peace, from 1775 to the present time, excepting those due to army service in the late war, and all claims for service pension and bounty land, numbering in all—admitted, rejected, and pending—nearly one million, are on file in this division; and the records relating to them are very voluminous and complicated.

The various duties in connection with these claims, as indicated above, including an extensive correspondence in relation to Revolutionary claims, and other claims which were adjudicated many years ago, require a large miscellaneous force,

Average number of employes during each month in 1884, 1885, 1886, and up to March 1, 1887.

Month.	1884.	1885.	1886.	1887.	Month.	1884.	1885.	1886.	1887.
January.....	59	52	51	50	July.....	55	50	47	.....
February.....	58	52	50	52	August.....	54	54	43	.....
March.....	57	53	43	.....	September.....	53	51	44	.....
April.....	55	53	43	.....	October.....	54	53	48	.....
May.....	58	54	46	.....	November.....	53	53	47	.....
June.....	57	53	48	.....	December.....	54	55	46	.....

Compliance with this paragraph, "The maximum and minimum amount of business transacted and disposed of by the employe doing the most and the employe doing the least in each division during each month in the years 1884, 1885, 1886, and up to March 1, 1887," is impossible for the following reasons: The great variety of work assigned to the Old War and Navy division makes constant transfer of clerks from one class of work to another, back and forth, according to the pressure, necessary, and the answering of the question implied in the above inquiry impossible.

JAS. B. COIT,
Chief, Old War and Navy Division.

	1884.	1885.	1886.	1887. March 1.
Number of working days.....	307	302	307	48
Average attendance of employes.....	274	267	275	46
Maximum number of days present.....	282	282	291	48
Minimum number of days present.....	225	235	200	38

SPECIAL EXAMINATION DIVISION.

Report of the special examination division, Bureau of Pensions, on the methods of business and work, as requested by Senate select committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., April 2, 1887.

GENERAL: In compliance with your directions I have the honor to submit the report called for March 18 of the current year, by the Hon. F. M. Cockrell, chairman Senate Select Committee.

This (the special examination) division has two branches, viz: a field force of special examiners (divided geographically into five districts, each under a supervising examiner here), and an office force of clerks (now divided into sections) whose principal duty is to keep the field force supplied with work.

Pension claims (with a slip of reference, stating the object of the examination) are received into this division for special investigation, generally from the adjudicating divisions and the board of review. On the receipt of a claim, it is first recorded by number and name in a book kept for that purpose. It is then opened and sufficient data taken, in an abstract form, from the papers to identify it and enable the office to answer any inquiries about it. This abstract is filed in the place of the case, which is then charged to and (with the reference slip or letter of instructions) mailed to a special examiner, who forwards a receipt for the case on its arrival. When the case is reached in its order—the oldest on file in the Bureau generally having precedence—the special examiner notifies the claimant by mail of the probable date of examination of his case. Within a period of two days prior to the probable date fixed by the said notice, a second notice is served by the special examiner in person on the claimant, and an acknowledgment of such service obtained. At the expiration of the two days the claimant is fully advised (by the examiner) of all his rights and privileges of being present in person, or by attorney (or both), during the investigation of his claim. When all accessible testimony bearing upon the point or points in question is obtained, the case is returned by mail from the field. It is then reviewed to de-

termine whether the special examiner has complied with the instructions accompanying the case. If he has done so, the case is sent and charged to the board of review for their action.

I am, general, very respectfully,

WM. McE. DYE,
Chief Special Examination Division.

General JOHN C. BLACK,
Commissioner of Pensions.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of, at the dates specified below, in the division of special examination in the Bureau of Pensions:

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.
The special examination of pension claims.....	15,745	12,282	13,583	14,144	11,110	16,164
Criminal cases included in above statement.....	118	387	*192	313	221	†190
Letters to special examiners and others.....			3,941			4,920
Reductions.....			392			60
Suspensions.....			456			677
Droppings.....			477			247
Rejections.....			1,830			2,934
Credibility inquiries.....		19,000	19,000		30,000	30,000
Attorneys' calls, complaints, Department matters, &c., recorded.....		25,000			11,000	
Replies to inquiries of all classes.....			14,000			7,500
Letters and telegrams to special examiners.....			17,424			22,936
Letters, telegrams, and requisitions from special examiners.....		6,000	6,000		6,000	6,000
Auditing per diem and expense accounts of special examiners.....		3,743	3,743		4,365	4,365
Recording daily reports of special examiners.....		114,245	114,245		121,155	121,155

* Convictions, 156; acquittals, 36.

† Convictions, 109; acquittals, 81.

Character of business.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
The special examination of pension claims..	9,390	15,733	18,494	6,629	2,738	2,350	7,017
Criminal cases included in above statement..	344	274	*172	446	15	†24	‡437
Letters to special examiners and others.....			3,996			369	
Reductions.....			282			42	
Suspensions.....			1,086			92	
Droppings.....			742			92	
Rejections.....			2,933			84	
Credibility inquiries.....		50,000	50,000		6,500	6,500	
Attorneys' calls, complaints, Department matters, &c., recorded.....		8,500			1,729		
Replies to inquiries of all classes.....			5,500			700	
Letters and telegrams to special examiners.....			22,557			5,595	
Letters, telegrams, and requisitions from special examiners.....		5,200	5,200		686	686	
Auditing per diem and expense accounts of special agents.....		4,035	4,035		528	528	
Recording daily reports of special examiners.....		113,107	113,107		15,567	15,567	

* Convictions, 115; acquittals, 57.

† Convictions, 15; acquittals, 2; nol pros., 7, waiting action, 364; indictments, 73.

‡ Cases

The following statement shows the amount and character of business transacted and disposed of in the special examination division of the Bureau of Pensions during the years specified :

Character of business.	1884.	1885.	1886.	1887 (Jan. and Feb.).
Total number of reports of cases by special examiners	22, 621	29, 396	28, 035	3, 779
Total number of depositions taken in same by special examiners	163, 268	178, 400	156, 282	20, 398
Average work of the field force of the division each month :				
Reports	1, 885	2, 449	2, 336	1, 889
Depositions	13, 605	14, 866	13, 023	10, 199
Average work of each special examiner per month :				
Reports	$6\frac{2}{3}$	$7\frac{9}{10}$	$8\frac{1}{3}$	$7\frac{3}{5}$
Depositions	$48\frac{2}{3}$	$48\frac{3}{5}$	$46\frac{1}{2}$	$41\frac{1}{5}$
Maximum work of each special examiner :				
Reports	(*)	(*)	37	18
Depositions	(*)	(*)	124	111
Minimum work of each special examiner :				
Reports	(*)	(*)	2	2
Depositions	(*)	(*)	5	6
Average amount of work per month of the office force, viz :				
Average number credibility inquiries	1, 583	2, 500	4, 166	3, 250
Average number attorneys' calls, Department matters, &c	2, 083	917	708	864
Average number of replies to inquiries of all classes	1, 166	650	458	350
Average number letters and telegrams to special examiners recorded	1, 452	1, 911	1, 880	2, 797
Average number letters, telegrams, and requisitions from special examiners recorded	500	500	433	343
Average number of per diem and expense accounts of special examiners audited	312	364	336	264
Average number of daily reports of special examiners recorded	9, 520	10, 096	9, 425	7, 783

* Cannot be given in time allotted.

The character of the work of each clerk in the office force being different from that of any other employé, and the constant change from one class of work to another, render it impracticable to give a comparative statement of the amount of work accomplished by each employé.

It is impracticable to give the maximum and minimum days of attendance of the employé attending the most number of days and of the employé attending the least number of days, and the average number of employés during each month, in the time allotted, but in lieu thereof the following table shows the comparative number of employés during the several months of the year (the time lost by the field force has been deducted, but that of the office force has not) :

Month.	Number of employés.			
	1884.	1885.	1886.	1887 (Jan. and Feb.).
January	299	467	399	317
February	306	468	397	316
March	303	465	391	
April	322	473	389	
May	332	455	378	
June	326	412	347	
July	359	341	333	
August	375	312	336	
September	446	360	342	
October	448	371	345	
November	438	381	323	
December	462	385	296	

MEDICAL DIVISION.

Report of the medical division, Bureau of Pensions, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS.
Washington, D. C., March 31, 1887.

SIR: In compliance with the circular of the Hon. Secretary of the Interior, dated March 23, 1887, I have the honor to submit the following report as to the method of transacting the business of the medical division of this Bureau, with the various details of said business, made the subject of inquiry by the Senate of the United States.

Very respectfully,

JOHN CAMPBELL,
Medical Referee.

Hon. JOHN C. BLACK, *Commissioner of Pensions.*

Statement showing in detail the methods of transacting business in the medical division of the Bureau of Pensions office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each until the same is finally disposed of and notice thereof duly given to the proper party.

The medical examiners are divided into sections, each having in charge a special class of work, as follows:

- (1) General and constitutional diseases.
- (2) Injuries and diseases of head, brain, and nervous system.
- (2) Injuries and diseases of eyes and other organs of special sense.
- (4) Injuries and diseases of thorax and thoracic organs.
- (5) Injuries and diseases of abdomen and abdominal organs.
- (6) Injuries and diseases of pelvis, pelvic and urinary organs.
- (7) Injuries and diseases of extremities.
- (8) Medical examinations.

To the eighth section are referred all cases for examination by boards of surgeons or single surgeons in which it is supposed that special instructions are necessary and must be written. To this section also was assigned the class of cases coming under the act of August 4, 1886.

When pension claims reach the medical division they are first arranged or classified for distribution to the proper section, where they pass into the hands of the medical examiners, who, considering the medical evidence, determine whether the case shall be admitted or rejected, and, in the cases of admission, fix the rate at which pensions shall be paid. The action of the medical examiner is subject to the approval of the chief of section. The case then passes to the reviewer for a final examination. If the action is found correct it is ready for the signature of the medical referee, which completes the medical action.

The assistant medical referee and the two qualified surgeons constitute the examining board of the Bureau, act as chiefs of sections, and otherwise assist the medical referee in the supervision and management of the details connected with and incident to the medical work proper of the division.

There is a very large amount of work performed, which can be understood and comprehended by statement, which has never been tabulated. The following tables, however, with the explanatory statements accompanying, will, it is hoped, show clearly the amount of business transacted and the methods under which it is done in a satisfactory manner.

I cannot say that there has at any time within the period for which we have the data been any actual arrears of business in the medical division. Within my own personal knowledge there has been sufficient only to keep all employes busy, with the work in rapid transit. If there has been any falling behind in any department it has always by a little exertion been corrected in the space of a few days.

Herewith are submitted all the details of the work of the medical division which the records preserved enable me to supply.

Statement showing the principal items of business transacted in the medical division of the Bureau of Pensions office, Department of the Interior.

- Adjudication of pension claims.
- Examination of surgeons' certificates.
- Verification of surgeons' accounts.
- Records.
- Correspondence.
- Instructions for medical examinations.

Statement showing the number of employés and character of business transacted in the medical division of the Bureau of Pensions office, Department of the Interior.

Medical referee.....	1
Assistant medical referee	1
Qualified surgeons	2
Medical examiners	18
Clerks	47
Messengers.....	2
Total	70

One medical referee, one assistant medical referee, two qualified surgeons, and eighteen medical examiners have continued unchanged as to numbers since January, 1884.

Seven clerks are employed on surgeons' accounts.

Three medical examiners and one clerk (formerly a medical examiner) are employed in reviewing the work of sections.

Fifteen medical examiners are employed in the adjudication of pension claims.

Twelve clerks, also physicians, are employed in the adjudication of pension claims.

Three clerks, also physicians, are employed in the examination of surgeons' certificates.

One clerk, also a physician, is employed in the classification of work.

One clerk has general supervision of clerical force.

One clerk has charge of roster of examining surgeons.

One clerk engaged as stenographer and type-writer.

One clerk employed in supervision of record work.

Seven clerks engaged upon surgeons' accounts.

Fifteen employed upon records.

Three clerks employed upon files.

The following statement shows number of pension cases adjudicated during the periods specified below, in the medical division of the Bureau of Pensions, Department of the Interior :

	Current.	Miscella- neous.	Total.
Quarter ending September 30, 1884	18, 259	9, 250	27, 509
December 31, 1884.....	13, 618	7, 085	20, 703
March 31, 1885.....	18, 650	3, 319	21, 969
June 30, 1885	32, 041	5, 299	37, 340
Total.....	82, 568	24, 953	107, 521
Quarter ending September 30, 1885.....	23, 230	8, 496	31, 726
December 31, 1885.....	32, 574	13, 802	46, 376
March 31, 1886	34, 187	18, 540	52, 727
June 30, 1886.....	34, 752	17, 830	52, 582
Total.....	124, 743	58, 668	183, 411
Quarter ending September 30, 1886	23, 973	15, 934	39, 907
December 31, 1886.....	26, 528	14, 172	40, 700
March 31, 1887	31, 417	2, 837	34, 254

There have also been adjudicated during the last quarter under the act of August 4, 1886, 3,042 cases.

The following statement shows the number of surgeon's certificates received and accepted and returned for correction during the periods specified below, in the medical division of the Bureau of Pensions, Department of the Interior:

	Received and ac- cepted.	Returned for cor- rection.	Total.
Quarter ending September 30, 1885	36,097	1,953	38,050
December 31, 1885	40,710	2,421	43,131
March 31, 1886	37,046	2,579	39,625
June 30, 1886	44,389	3,023	47,412
Total	158,242	9,976	168,218
Quarter ending September 30, 1886	85,156	4,443	89,599
December 31, 1886	62,656	2,556	65,212
March 31, 1887	40,683	1,033	41,716

All medical examinations ordered within the Bureau are sent to the medical division to be recorded and mailed, and the certificate of examination, when made, is received by the medical division, where it is also recorded and examined as to its fullness, compared with the board account corresponding, with a view to the correctness of the account, and if satisfactory is accepted as to both the certificate and the account. If not, it is returned to the board for correction or amendment, as the case may be.

Statement showing the examining surgeon's accounts during the periods specified in the medical division of the Bureau of Pensions, Department of the Interior.

Fees for fiscal year ending June 30, 1885	\$610,402 06
Fees for quarter ending September 30, 1885	155,331 31
December 31, 1885	183,581 27
March 31, 1886	179,896 29
June 30, 1886	208,898 27
Total	727,707 14
Fees for quarter ending September 30, 1886	158,173 60
December 31, 1886	173,070 90
March 31, 1887	176,232 11

The report for the fiscal year ending June 30, 1885, does not include the fees for examinations made during the quarter ending June 30, 1885, but does include those for the quarter ending June 30, 1884, and a few other examinations made prior thereto, where the surgeons had delayed rendering their accounts.

In verifying these accounts every item is compared with the corresponding certificate and the record.

Statement showing the amount of correspondence during the periods specified below, in the medical division of the Bureau of Pensions, Department of the Interior.

Letters written during the quarter ending—	
September 30, 1884	1,019
December 31, 1884	923
March 31, 1885	942
June 30, 1885	1,171
Total for year	4,055
Letters written during quarter ending—	
September 30, 1885	1,141
December 31, 1885	891
March 31, 1886	1,017
June 30, 1886	884
Total for year	3,933
Letters written during quarter ending—	
September 30, 1886	695
December 31, 1886	746
March 31, 1887	807

The labor involved in correspondence is very great, in consequence of its requiring the withdrawal of cases and papers from the files in almost every instance, and oftentimes a large number. No formal letters can be used. Each one must cover the particular point or points involved and is *sui generis*.

Instructions for medical examinations form no part of the above correspondence.

The following statement shows the average number of employes in the medical division of the Bureau of Pensions Department of the Interior, during the periods specified:

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	49	48	48	49	50	49	49	49	49	49	57	48
1885.....	45	41	40	40	40	41	45	45	50	49	51	47
1886.....	50	50	51	51	51	63	63	65	73	73	73	73
1887 (to March 1)	73	70	70	.....	.....	.....	.....	.....	.....	.....	.....	.....

The foregoing statistics are all that I have been able to compile from the data preserved and accessible.

Respectfully submitted.

JOHN CAMPBELL,
Medical Referee.

BOARD OF EXAMINING SURGEONS FOR PENSIONS.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., March 31, 1887.

SIR: Pursuant to your directions of this date, I have the honor to submit the attached report, as per order of Hon. H. L. Muldrow, Acting Secretary of the Interior, dated the 29th instant, which says: "Please furnish me, as soon as practicable, the number of boards of examining surgeons for pensions, and the number of the members of such boards, and the number of individual examining surgeons of pensions."

Very respectfully,

PHILIP H. BARTON,
Assistant Medical Referee.

Hon. JOHN C. BLACK, *Commissioner of Pensions.*

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of, at the dates specified below, in the medical division of the Bureau of Pensions:

	No. of boards.	No. of members of boards.	No. of single surgeons.		No. of boards.	No. of members of boards.	No. of single surgeons.
Alabama			1	Missouri.....	29	86	28
Arizona Territory			3	Montana Territory.....	1	3	5
Arkansas.....	5	14	8	Nebraska.....	16	47	25
California.....	5	14	11	Nevada.....			2
Colorado.....	3	9	12	New Hampshire.....	10	30	9
Connecticut.....	6	18	5	New Jersey.....	5	15	15
Dakota Territory.....	17	49	18	New Mexico Territory.....			6
Delaware.....	1	3		New York.....	32	96	58
District of Columbia.....	2	6		North Carolina.....	3	9	10
Florida.....	3	7	6	Ohio.....	52	154	30
Georgia.....	2	6	2	Oregon.....	1	3	9
Idaho Territory.....			4	Pennsylvania.....	46	133	43
Illinois.....	48	138	40	Rhode Island.....	1	3	
Indiana.....	49	145	27	South Carolina.....			2
Indian Territory.....			3	Tennessee.....	7	19	20
Iowa.....	41	121	35	Texas.....	2	6	11
Kansas.....	30	84	37	Utah Territory.....	2	3	
Kentucky.....	20	60	29	Vermont.....	8	24	9
Louisiana.....	1	3	1	Virginia.....	2	6	8
Maine.....	17	50	18	Washington Territory.....	2	6	6
Maryland.....	4	12	6	West Virginia.....	8	24	15
Massachusetts.....	8	24	20	Wisconsin.....	14	39	39
Michigan.....	30	90	25	Wyoming Territory.....			5
Minnesota.....	14	42	18				
Mississippi.....			5	Total.....	547	1,603	689

LAW DIVISION.

Report of the law division, Bureau of Pensions, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
April 2, 1887.

SIR: In accordance with your instructions and in answer to the call of Hon. F. M. Cockrell, chairman of the Senate Select Committee "to inquire into and examine the methods of business and work in the Executive Departments of the Government, the time and attention devoted to the operations thereof by the persons employed therein, and generally to inquire into and report to the Senate the cause of the delay in transacting the public business said to exist in some of the Departments," and answering the requests for information in the order in which they are set out in the letter of Mr. Senator Cockrell to the Secretary of the Interior, I have the honor to report as follows:

By appointment as law clerk of the United States Pension Bureau I qualified and entered upon the discharge of my duties on the 25th day of September, A. D. 1885. At that date there were in the office of the law clerk two female copyists, and I am unable to advise you what the duties of the law clerk were, how they were discharged, nor furnish you with any detailed statement of the work in that office beyond the simple statement that the law clerk seems, prior to that date, to have had no specified duties beyond reporting pending appeals to the Secretary of the Interior.

The records of the office consisted in a number of letter-press copy books and certain dockets indorsed "appeal dockets."

My experience shows that the dockets were very imperfectly kept, were incomplete in method, and as a basis for any definite statement wholly unreliable. Nevertheless, relying upon such data as are furnished by the records referred to, in answer to the first question for information, that is, for a "detailed statement showing the amount and character of business pending in each division on the 1st day of January, 1884," I have the honor to advise you that there would appear to have been pending in the office of the law clerk on the 1st day of January, 1884, 533 appeals. Between January 1, 1884, and January 1, 1885, there were received in the office of the law clerk of the Pension Bureau 2,188 appeals, and during the calendar year 1885 there were decided by the Commissioner, of the pending appeals, and transmitted to the Secretary, appeals to the number of 1,472, so that on the 1st day of January, 1885, there were pending for report by the Commissioner and decision by the Secretary appeals to the number of 1,249.

Between the 1st day of January, 1885, and the 1st day of January, 1886, there were received appeals to the number of 2,860, and during the calendar year 1885 appeals were decided by the Secretary to the number of 1,527, and there were pending in the office of the law clerk on the 1st day of January, 1886, for report by the Commissioner and decision by the Secretary, appeals to the number of 2,592.

Between the 1st day of January, 1884, and the 25th day of September, 1885, an examination of the letter-press copy books of the so-called reports upon pending appeals show virtually nothing in any of these cases beyond letters of transmittal.

On the 25th day of September, 1885, the force assigned to duty at the desk of the law clerk, which desk was known in the Bureau of Pensions as the "appeal desk," consisted of a law clerk at a salary of \$2,000; two clerks, Miss Georgiana Kenny, a clerk at \$1,400, and Mrs. Anna M. Cleary, at a salary of \$1,200.

Shortly after my advent to office, the work of the law clerk being increased by references upon questions of law, from the desk of the honorable Commissioner of Pensions, the deputy commissioners, and the several chiefs of division, upon my request, the Commissioner assigned to me as a stenographer, on the 23d day of October, 1885, a young man, carried at that time upon the pension rolls as a "messenger boy," Harry Lineaweaver, at the salary of \$400.

Mrs. Anna M. Cleary being, by order of the Commissioner, transferred to the board of re-review, at a date that I am unable particularly to state, Miss Mary E. Weeks was assigned to the office of the law clerk, drawing at the date of her assignment a salary of \$900.

Between the 24th day of September, 1885, and the 1st day of January, 1886, with the sanction of the Commissioner of Pensions, I took such steps as were then possible to establish a proper and complete system of recording the work of the law clerk, and more especially devoted much time to establishing a more careful and exhaustive form of report on pending appeals for the consideration and signature of the Commissioner.

By Order No. 125, dated January 26, 1886, a division was created by the Commissioner of Pensions, to be known as the "law division," and for the first time the duties of the law clerk and such clerks as might be assigned were, in a measure, clearly de-

fined, and a copy of Order No. 125, creating the law division, is hereto annexed and marked Exhibit A.

I found that upon the question of attorneys, their recognition, their rights under the law, methods of considering complaints, rectifying errors in both the recognition of attorneys and the payment of fees, there was no system, record, or anything like a uniformity of precedent in any of the questions so presented.

By instructions of the Commissioner of Pensions, and under his direction, the old rules of practice were revised *in toto*, and a new set of rules promulgated, taking effect on the 1st day of February, 1886. Further than that, that no attorney might claim nor any clerk have the power to give to an attorney precedence over any other, I caused to be prepared a system of dockets known as "attorney and fee dockets," numbered in consecutive order and entered and acted upon as received in this Bureau, a sample sheet of which docket, as better suggesting the nature of this part of the work is hereto annexed and marked Exhibit B.

Further, finding that, where these questions had been once considered and the same questions were again presented in any given claim, a great amount of time and labor was unnecessarily expended in going through all of the papers in the claim, to reach as a rule what comparatively few papers were necessary to decide a question of right to recognition, I caused to be prepared, under the direction of the Commissioner, a system of fee envelopes, corresponding to any given docket number, into which are placed all of the papers relating to fee questions, recognition, and other questions strictly appertaining to rights of attorneys as distinct from the rights of the claimant, indorsed with the docket entry, so that a question having been once handled there is neither loss of time nor unnecessary labor in handling either the same question or in deciding a question of recognition after action has been once had in this division. A copy of the envelope referred to is hereto annexed and marked Exhibit C.

Upon the organization of the law division, I subdivided it into three sections, first known as the "appeal section," the "attorney and fee section," and the "criminal and notary public section," but as the law division increased in numbers and in the character and nature of its duties, at a later date the division was subdivided into three sections, known, respectively, as Sections A, B, and C, which organization of division is now in operation.

As complete and full a reply to the letter of Mr. Senator Cockrell as I am able to make, the history of each one of these sections is as follows:

Section A was, from the time of the organization of the division, charged with the disposition of pending appeals. On February 1 the section consisted of Mr. Gideon A. Lyon, at a salary of \$1,800; Mr. J. A. Whitcombe, at a salary of \$1,400; and Mr. Frank Claudy, at a salary of \$1,200.

On the 1st day of April, 1886, I assigned Mr. S. P. Pearson to duty in Section A, as clerk at a salary of \$1,600.

On May 20, 1886, I assigned Mr. O. H. Rundle to duty in that section, at a salary of \$1,800, and on the same day Mr. Joseph Dickinson at a salary of \$1,600, Mr. Theodore Sargeant at a salary of \$1,200, Mr. E. B. Olmstead at a salary of \$1,000, and on November 5, Mr. J. D. Haile at a salary of \$1,000, on November 15, Mr. A. K. Arnold at a salary of \$1,400, and Mr. Manual Johnson at a salary of \$1,400.

On October 26, 1886, Mr. Horah, who was in the division only a few days, was also assigned to this section.

Subsequently both Mr. Dickson and Mr. Whitcombe were transferred to other divisions of the office, so that Section A, as constituted to-day, consists of Mr. Gideon A. Lyon, \$1,800; Mr. O. H. Rundle, \$1,800; Mr. S. P. Pearson, \$1,600; Mr. Manual Johnson, \$1,400; Mr. A. K. Arnold, \$1,400; Mr. F. Claudy, promoted October 25, 1886, \$1,400; Mr. J. D. Haile, \$1,000, and Mr. E. B. Olmstead, \$1,000; and in connection with Section A and with the Congressional and other correspondence connected with the pending appeals and the strictly clerical work connected with the records, are assigned Mr. P. F. Sullivan, \$1,000; Miss Georgiana Kenny, \$1,400; Miss N. E. Royer, \$1,400, and as type-writers and copyists, Mrs. A. H. Woodall at a salary of \$1,000, and Mr. R. E. Mattingly at a salary of \$900.

I have the honor to annex as Exhibits D and E, respectively, a sheet of the old dockets and a sheet of the new dockets, as suggesting a completer form of keeping the records at present than under the old system, and an enormous saving of time in the handling of cases.

Each of the gentlemen connected with this work of Section A have been required by me to keep daily a memorandum of the cases acted upon by them, and I submit as marked Exhibit F, a statement of the time and number of cases disposed of by each clerk in section A, month by month, from their advent into the division to the 1st of March, 1887.

Section B has charge of the records of attorneys, pension notaries, notaries public, justices of the peace, and the files of all officers connected with the prosecution of pension claims as attorneys or authorized to administer oaths, and to this section are

assigned three clerks—Mr. Alonzo Weeks, \$1,400; Miss Emmilly Browne, \$1,200; and Miss Carrie Maher, \$1,000.

The work of this section is a matter of detail, pure and simple, and I have the honor to annex, and marked Exhibit G, the report of the work done by this section from the 1st day of February, 1886, to the close of business hours on the 28th day of February, 1887.

It is impossible in this section, or indeed in any other section, to state the relative amount of work done by each clerk, nor is the estimate of the number of cases disposed of a fair criterion with reference to the ability or industry of any clerk, since it may happen that one man will find a case involving no difficult point of consideration, and dispose of two or three in a day; whereas another man may find cases requiring consideration, study, and care, extending over several days.

I have the honor to annex hereto, marked Exhibit H, an itemized statement, as shown by the appeal dockets, of all the cases received and reported to the Secretary between the 1st day of January, 1884, by calendar years, to the 28th day of February, 1887; but up to the 1st of October, 1885, I do not believe that these records are reliable or the data absolutely correct. From that date on, however, the statement is absolutely correct.

Section C has charge of the investigation of criminal charges, of the recognition of attorneys, discipline of attorneys, the certification of fees to attorneys in disputed claims, the correction of errors in the action of the adjudicating divisions in the matter of recognition or certification of fees, and all correspondence relating to any one of these questions.

To this section are assigned Mr. E. A. Harding, \$1,800; Mr. C. L. Whelpley, \$2,000; Mr. V. E. King, \$1,600; Mr. E. E. Fuller, \$1,200; Mr. S. S. Simpson, \$1,200; Mr. C. C. Williams, \$1,400; and as copyists, Miss Mary E. Weeks, \$1,200; Mrs. A. De K. Shattuck, \$900, and Mrs. M. A. Winslow, \$1,200. And I annex hereto, as showing the work of this section collectively and individually, marked Exhibit I, and the individual reports of Messrs. E. E. Fuller, V. E. King, and Charles L. Whelpley, and the report of Miss Weeks.

Under my instructions, Mr. E. A. Harding has general charge of this section, and both the nature of his work and the time necessarily taken in the proper supervision of the work of the clerks in the section renders any estimate by detailed statement of the work done by him impossible.

At my own desk I have, as an assistant, in reviewing questions of law presented for decision, answering correspondence upon either the construction of the pension laws or the practice of the office, and upon all of the comparatively legal questions, Mr. E. Bierer, jr., clerk, at a salary of \$1,800, and as a stenographer, Miss Frances E. Hewlett.

My own duties consist in reviewing all reports on appeals before they are submitted for the signature of the Commissioner, the supervision and direction of all matters sent from the bureau of criminal prosecution, the decision of questions presented from the different divisions of the Bureau upon the law and practice, the presentation orally of such points as may be so directed by the Commissioner of Pensions, and generally the discharge of all such duties as from time to time are laid upon me by the Commissioner.

I have inaugurated in the law division an absolutely accurate record of every item of business transacted. I have divided the correspondence into systematic subdivisions, and have caused press copies to be taken of every question propounded and answered by me as law clerk, or from the division, over my signature.

By direction of the Commissioner of Pensions, I have further prepared, upon questions involving general principles of law or practice in the Bureau, a record of rulings to the number of 206. These rulings cover questions of law, involving such questions as legitimacy, marriage, divorce, guardianship, evidence, presumption, and other questions incident to the prosecution of pension claims before this Bureau.

By direction of the Commissioner of Pensions, since the 1st of January, 1887, I have been personally charged with the general direction of criminal prosecutions in the matter of referring to the Attorney-General's Office for prosecution, offenders against the pension laws.

Further, by order of the Commissioner, I caused to be prepared a statement to the Attorney-General, of all criminal cases pending for prosecution in the several districts of every State and Territory in the Union, and have opened a new set of "criminal dockets," eliminating from the old dockets cases either barred by the statute of limitations or ended by conviction or acquittal, and am now, by the direction of the Attorney-General to the several district attorneys throughout the United States, advised through the honorable Commissioner of Pensions of the status of every pending criminal prosecution and the progress and action in all of them.

All of which is respectfully submitted.

Very respectfully,

JAMES M. WARD.

Hon. JOHN C. BLACK, *Commissioner of Pensions.*

Order 125.

DEPARTMENT OF THE INTERIOR,
PENSION OFFICE,
Washington, D. C., January 26, 1886.

A division to be known as the law division of the Pension Office is hereby established and will be operative from and after February 1, 1886.

Mr. James M. Law, law clerk, is hereby designated as chief of said division.

The following-named persons will report to Mr. Ward for instructions and duty in connection with said division:

E. A. Harding, J. M. McCoy, Alonzo Weeks, Mrs. M. P. Winslow, Miss Carrie Maher, and Miss Emily Brown, of the special examination division; Charles M. Whelpley, V. King, S. P. Pearson, J. A. Whitcombe, of the miscellaneous division; George A. Lyon, of the Southern division, and F. A. Claudy, of the Western division.

All matters relating to attorney's fees; all matters relating to the standing of attorneys practicing before this Bureau; all matters relating to appeals from the decisions of the Commissioner of Pensions to the Secretary of the Interior will be sent to this division. Other duties will, from time to time, be indicated by the Commissioner.

All rulings and orders of the Commissioner of Pensions relating to the disposition of cases, or to the laws and practice of the office, will be transmitted through the chief clerk immediately to the law division for record and preservation, as will, also, all rulings and decisions of the Secretary of the Interior, or other law officer, touching the conduct, practice, and business of the Pension Bureau.

The chief of this division is charged with the duty of preparing for publication by the chief clerk all rulings and decisions affecting the practice of the office and business therein.

All mail matter pertaining to the various questions above assigned to the law division will be sent immediately to said division.

JOHN C. BLACK,
Commissioner.

No. 9588.	188 .	Action.	Docket No.
Name of Attorney,			ATTORNEY:
Name of Claimant,			CLAIMANT:
Service,			SERVICE:
Co., Reg't,			Co., Reg't,
Number,			No.,
Action desired,			Filed law division,
			Returned to files,
			NOTES:

Docket No. 2400. Appeal of

188 .	Claim No.
	Nature of Appeal,
	Attorney,
	Report called for,
	Commissioner's action,
	Report transmitted, L. B. p.
	Decision received,
	Decision transmitted, L. B. p.

1886.		1886.	
Mr. Claudy, for February and March	74	Mr. Olmsted, from May 20.....	16
Mr. Claudy, for April	49	Mr. Olmsted, for June	37
Mr. Claudy, for May	52	Mr. Olmsted, for July	38
Mr. Claudy, for June.....	77	Mr. Olmsted, for August	29
Mr. Claudy, for July	80	Mr. Olmsted, for September	24
Mr. Claudy, for August	60	Mr. Olmsted, for October.....	26
Mr. Claudy, for September	45	Mr. Olmsted, for November	29
Mr. Claudy, for October	59	Mr. Olmsted, for December.....	24
Mr. Claudy, for November.....	61		
Mr. Claudy, for December.....	39	Average per month	30½
Average per month	54	1887.	
1887.		Mr. Olmsted, for January	53
Mr. Claudy, for January	48	Mr. Olmsted, for February	89
Mr. Claudy, for February	45	Average per month	71
Average per month	46½	1886.	
During this period he had thirty days' leave.			
1886.		Mr. Sargeant, from May 20.....	11
Mr. Lyon, for February	34	Mr. Sargeant, for June	16
Mr. Lyon, for March	23	Mr. Sargeant, for July.....	26
Mr. Lyon, for April	35	Mr. Sargeant, for August.....	37
Mr. Lyon, for May	53	Mr. Sargeant, for September	4
Mr. Lyon, for June	55	Average per month	22
Mr. Lyon, for July	30	Mr. Sargeant was absent on leave during the most of the month of September, and was dismissed on October 5, 1886.	
Mr. Lyon, for August	12	1886.	
Average per month	35	Mr. Dickinson, from May 20.....	5
1886.		Mr. Dickinson, for June	15
Mr. Pearson, for April.....	30	Mr. Dickinson, for July	21
Mr. Pearson, for May	58	Mr. Dickinson, for August	14
Mr. Pearson, for June	69	Mr. Dickinson, for September	7
Mr. Pearson, for July.....	93	Average per month	14½
Mr. Pearson, for August.....	10	Mr. Dickinson was transferred from the division on September 18, 1886.	
Mr. Pearson, for September	70	1886.	
Mr. Pearson, for October	65	Mr. Johnson, for December.....	13
Mr. Pearson, for November	4	1887.	
Mr. Pearson, for December	2	Mr. Johnson, for January	22
Average per month	44½	Mr. Johnson, for February	32
1887.		Average per month	27
Mr. Pearson, for January.....	89	Mr. Johnson was employed on miscellaneous work from November 16, 1886, to December 1, 1886, and was on leave during the month of December.	
Mr. Pearson, for February	53	1886.	
Average per month	71	Mr. Arnold, for November.....	12
Mr. Pearson acted as chief of the section from November 1 to December 29, 1886, and made during said period but five reports on cases; he has also been assigned to the duty of replying to miscellaneous correspondence since February 18, 1887, and replied to one hundred and forty inquiries from said date to March 1, and reported upon four appeals.			
1886.		Mr. Arnold, for December.....	27
Mr. Rundel, from May 21.....	11	Average per month	19½
Mr. Rundel, for June.....	46	1887.	
Mr. Rundel, for July	43	Mr. Arnold, for January.....	32
Mr. Rundel, for August	44	Mr. Arnold, for February	35
Mr. Rundel, for September	39	Average per month	33½
Mr. Rundel, for October	31	Mr. Arnold was employed on miscellaneous work from November 16 to about December 1, 1886.	
Mr. Rundel, for November	28	1886.	
Mr. Rundel, for December (absent on leave) ..	00	Mr. Haile, for November	17
Average per month	30	Mr. Haile, for December	30
1887.		Average per month	23½
Mr. Rundel, for January.....	44	1887.	
Mr. Rundel, for February	36	Mr. Haile, for January	34
Average per month	40	Mr. Haile, for February.....	42
		Average per month	38

Mr. Whitcombe, one of the original detail to the law division, was transferred from the division on March 18, 1885, and there is no record of any work disposed of by him during the month and eighteen days that he remained in the division.

Mr. Horah was in the law division from October 27, 1885, to November 17, 1886, and the records do not show the work done by him.

After the division was reorganized and divided into sections, Mr. Lyon was placed in charge of section A, and since which time he has not been employed in reporting on appeals.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., March 31, 1887.

WORK REPORT—SECTION B.

The following is a report of the amount and class of work done by the desk of clerk in charge of records of attorneys, pension notaries, notaries public, justices of the peace, and files for the same, from February 1, 1886, the date of the organization of the law division, to February 28, 1887, inclusive:

Records searched and the standing of attorneys certified to chiefs of divisions in—	
Original claims	51,498
Increase claims	81,647
Powers of attorneys	15,882
Examiner's slips	8,352
The work properly assorted and distributed to the several divisions.	
Circular letters with blank oaths of allegiance and instructions mailed to persons desiring to qualify as attorneys, and record made of same	2,266
Certificates of qualifications and oaths received and forwarded to the honorable Secretary of the Interior for his consideration, and record made of the same	560
New attorneys and agents certified by the honorable Secretary of the Interior as having been admitted to practice before this and other Bureaus of the Department, and their names entered on the roster	1,661
Orders signed by the honorable Commissioner of Pensions affecting the status of attorneys received and the fact noted on the roster, of—	
Suspension	None.
Disbarment	4
Prohibition under section 190, R. S.	26
Prohibition under section 5498, R. S.	25
Prohibition under section 5498, R. S., ceased	3
Prohibition under section 190, R. S., ceased	1
Restoration	8
Change of residence	94
Deaths	35
Dropped	1
Papers containing charges against or relating to attorneys, jacketed, name entered on the index to, and papers placed in attorneys files	216
Papers drawn for examination from and returned to attorney files	1,398
Application for the designation of pension notaries referred to the honorable Commissioner of Pensions for his consideration and direction	18
Pension notaries designated and commissioned	17
Letters written	856
Records searched and the standing of notaries public and justices of the peace certified to the chief of division, in—	
Examiner's slips	8,678
Circular letters written	2,022
Certificates of notaries public and justices of the peace received and examined	7,219
Searched and recorded	7,219
Imperfect certificates searched and returned for correction	345
Blank certificates for clerk of courts mailed to those desiring to file the same for general reference	161
Notaries public commissions returned	56

In addition to the amount and class of work done at the attorneys desk during the period covered by this report, the names and residences of more than 15,000 attorneys have been copied from the old into the new roster of attorneys by Misses Browne and Maher.

As the attorneys desk deals wholly with current work, there was nothing pending on it when the law division was organized, excepting the completion of copying the old roster of attorneys.

While there is a general division each day of the work relating to attorneys, between Miss Browne and myself, it has not been with that definiteness to enable me to give an accurate account of the amount of work done by each, individually, but it is so divided that every call made is answered on the day of its receipt.

As Miss Maher's work relates exclusively to magistrates, this report will show the amount of work done by her individually.

Respectfully submitted.

ALONZO WEEKS.

JAMES M. WARD, Esq.,
Chief, Law Division.

To January 1, 1884	533
Cases pending	533
To January 1, 1885, appeals received	2,188
To January 1, 1885, appeals decided	1,472
January 1, 1885, appeals pending	1,249
To January 1, 1886, appeals received	2,860
To January 1, 1886, appeals decided	1,527
January 1, 1886, appeals pending	2,592
To January 1, 1887, appeals received	3,068
To January 1, 1887, appeals decided	1,543
January 1, 1887, appeals pending	4,117
To March 1, 1887, appeals received	469
To March 1, 1887, appeals decided	799
March 1, 1887, appeals pending	3,787

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., March 31, 1887.

WORK REPORT—SECTION C.

From February 1, 1886, to February 28, 1887, with the names and grade of clerks composing the same.

	Salary.
E. A. Harding	\$1,800
Alonzo Weeks	1,400
J. M. McCoy*	1,200
Mrs. M. P. Winslow	1,200
Miss E. Browne	1,200
Miss Carrie Maher †	900

At the date of the organization of the law division, February 1, 1886, the attorney and criminal branch was composed of the above-named clerks, whose duties were to attend to all matters relating to criminal and improper acts of agents and attorneys in the prosecution of pension claims, to prepare cases for references to the Department of Justice for criminal prosecution, to attend to all matters pertaining to the suspension and disbarment of attorneys, and their restoration to practice, and to keep a record of attorneys practicing before the office, and also a record of the different notaries public and justices of the peace, the evidence of whose official character and date and duration of term of office are placed on file for reference.

On April 15, 1886, there was added to the section C. C. Williams; salary, \$1,400.

On May 20, 1886, the division was reorganized and the section designated Section C, and to the duties of the section were added those of attending to all matters relating to fees of agents and attorneys in the prosecution of pension claims and questions of disputed attorneyship, with the following additional clerks:

	Salary.
C. L. Whelpley	\$2,000
E. E. Fuller †	1,800
V. E. King	1,600
C. W. Simpson	1,200
Miss M. E. Weeks §	1,000

* Transferred to S. E. Division, June 17, 1886.
† Reduced to \$1,200 September 18, 1886.

† Promoted May 14, 1886, to \$1,000.
§ Promoted to \$1,200 August 2, 1886.

Work of Criminal part of the section.

Cases received for consideration.....	853
Cases in which final action has been taken.....	611
Cases referred to the S. E. Division for investigation.....	67
Cases in which partial action has been taken.....	112
Cases remaining to be acted upon (not examined).....	5
Cases submitted for prosecution.....	58
Cases returned, no indictments found.....	5
Convictions.....	24
Acquittals.....	0
Cases pending in the courts.....	29
Letters written to attorneys, in which unlawful or improper conduct was alleged against them.....	660
Letters written to members of Congress.....	62
Letters written, classed as miscellaneous.....	1,559
Letters written to the honorable Secretary of the Interior.....	172
Letters of advice written to district attorneys.....	10
Reports made to the honorable Secretary of the Interior relating to suspension and disbarment of attorneys and restoration to practice.....	55
Cases in which unlawful fees have been refunded upon the action of this section.....	121
Amount so refunded.....	\$8,852 78
Certifications of evidence.....	166

Respectfully submitted.

E. A. HARDING.

JAMES M. WARD, Esq.,
Chief, Law Division.

Report of Mr. V. E. King, since February 1, 1886, to February 23, 1887.

Claims disposed of (questions of attorneyship and fees).....	4,637
Letters written (relating to questions of fee and recognition).....	1,859
References (relating to attorneyship).....	1,638

Report of Mr. Charles L. Whelpley, since February 1, 1886.

Claims disposed of (questions of attorneyship).....	4,168
Letters written (relating to matters of fee and recognition).....	2,933
References (relating to attorneyship and fees).....	1,393
Appeals to Department (on matters of recognition and fees).....	78

Report of Miss Mary E. Weeks.

Number of cases entered on docket, 8,700.
All action taken by examiners entered on docket.
All evidence relating to cases already on docket numbered and applied.
Commissioner's rulings and Secretary's decisions recorded.

Report of Mr. E. E. Fuller, May 20, 1886, to March 1, 1887.

Cases disposed of on questions of attorneyship and fee.....	3,066
Letters written relating to questions of fee and recognition.....	722
References (relating to attorneyship).....	1,338

BOARD OF REVIEW.

Report of the board of review, Bureau of Pensions, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the board of review division of the Bureau of Pensions, Department of the Interior.

The board of review is charged with the duty of examining and passing upon the evidence that has been procured from all sources by the adjudicating divisions and the special examination division in pensions claims growing out of service in the Army and Navy in all wars in which the United States has been engaged, and also bounty-land claims.

The board of review conducts no correspondence for evidence.

Statement showing in detail the methods of transacting business in the board of review division of the Bureau of Pensions, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the Pension Office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each until the same is finally disposed of and notice thereof duly given to the proper party.

Claims that have been filed, numbered, and recorded are forwarded to the adjudicating division for necessary correspondence with the War Department and claimants for evidence to complete them.

When in the judgment of such division they are ready for final action, whether favorable or unfavorable, they are forwarded day by day to the board of review. The same course is taken where the division believes the case should be sent forward for special examination in the field.

Upon their receipt by the board of review they are filed for reference in the order of their dates of receipt.

As the different reviewers require work a number of cases in the order of the dates of submission are charged to them, and a record of the charge is made and placed in the files.

If upon the evidence submitted it is the reviewer's judgment that the case should be allowed or rejected, he enters his finding upon the brief.

If he thinks further information on any point is necessary to the determination of the merits of the claim he writes out such judgment and attaches it to the papers in the case.

Upon the completion of the review in this board, the cases, except those for ordinary increase of rate involving only a medical question, are at once charged to and sent to the board of re-review for examination of the action taken here.

Ordinary increase claims are sent after review at once to the medical division.

Upon the completion of its work the board of review sends such cases as require medical action to the medical division.

The medical division returns them to this board to have the rates allowed entered, the record completed, and the cases forwarded to the certificate division for issue of certificate.

Cases that do not require medical action are returned by the review board to this board with either its concurring or dissenting action on the decisions rendered here.

A concurrence of judgment completes the action, subject to appeal to the Commissioner.

On a dissenting opinion the case goes to the chiefs of the two boards for consideration. If they concur, it completes the action of the two boards; if not, the question is taken to the Commissioner.

Upon completion of the action a record is made and the case goes forward to the division where it originated unless the action be that of admission.

The board of review is composed of five sections, each presided over by a chief who supervises the work therein, and the force of file clerks and record clerks.

The following statement shows the amount and character of business received during the period at the dates specified below, in the division of board of review, in the Bureau of Pensions:

Character of business.	Received during fiscal year 1884.	Received during fiscal year 1885.	Received during fiscal year 1886.	Received from July, 1886, to Mar., 1, 1887.
July.....	4,789	5,178	11,258	12,154
August.....	4,552	5,248	9,382	11,659
September.....	4,871	6,872	10,189	12,195
October.....	6,152	6,373	14,322	11,936
November.....	5,257	6,542	14,452	10,058
December.....	5,398	7,059	14,855	11,811
January.....	7,495	7,821	14,513	12,041
February.....	6,417	6,288	13,114	13,557
March.....	7,392	9,264	15,130	.....
April.....	7,982	9,489	16,363	.....
May.....	8,606	10,373	14,624	.....
June.....	7,975	15,547	17,361	.....

As the board of review has no permanent files, its business being current business submitted to it, it cannot be stated what number of cases were on hand at a given date. The business transacted is fully given by classes and divisions in the accompanying tables. The above numbers are from reports of divisions, monthly, of cases

submitted to June, 1885, when the board made its own count. Up to June, 1885, cases that had been before the board once were not counted when resubmitted. From June, 1885, they were counted, as their re-examination took the time of the board.

The accompanying tables show the number of employés on the board of review, with the exception of clerks employed on such duty as to make it impracticable to make a record of the work, such as file clerks, record clerks, chiefs of sections, and miscellaneous duty—for instance, the supervision of attorneyships and fees in cases allowed to prevent error. These classes of employés were present for duty during all the time specified in the resolution, except when actually sick or on regular annual leaves. These clerks averaged each month in 1884 thirteen persons, exclusive of the chief; 1885, twelve persons, exclusive of the chief; 1886, nineteen, up to October, 1886, when five chiefs of sections were designated. The total for 1887 to March 1 was twenty-five. No clerical duty in this board has been done by proxy. It is impracticable to give the maximum and minimum amount of business by employés in figures on account of the varied work. A clerk can examine a large number of ordinary increase cases, but of other claims, especially those containing voluminous evidence or special examiners' reports, but a few can be examined in comparison.

[*Memorandum by Committee*: In the report of the Secretary of the Interior transmitting the report of the Bureau of Pensions on the methods of business, and work, &c., the board of review attached to their report five large sheets, each headed "Board of Review," one being a report for the fiscal year ending June 30, 1884, another for the fiscal year ending June 30, 1885, another for the fiscal year ending June 30, 1886, another for the semi-annual part of the year ending December 30, 1886, and the other for January and February, 1887, and each containing the names of all the reviewers, and opposite each name some thirty columns, with proper headings and with figures in each column opposite the names of the respective reviewers, indicating the amount of work performed by each, and making an immense mass of figures. The information contained in these massive sheets is not considered sufficiently important to justify the printing of the same. The committee has therefore substituted for all the said five sheets the following sheet, made out on a similar blank to those which the said five sheets were made out on, which shows the aggregate number of cases disposed of by all the reviewers during each of the periods indicated on each of the said five sheets respectively.]

Report for fiscal years ending June 30, 1884, 1885, 1886, and up to March 1, 1887.

Cases disposed of in fiscal year—	Original.									Total original claims disposed of.
	Invalid.			Widows.			Dependents.			
	Admitted.	Rejected.	Returned on review.	Admitted.	Rejected.	Returned on review.	Admitted.	Rejected.	Returned on review.	
1884.....	26,706	3,445	12,725	4,184	426	1,487	2,298	293	1,040	53,532
1885.....	28,375	4,912	9,664	4,854	1,481	1,532	3,336	1,009	1,041	56,711
1886.....	31,975	13,170	14,296	5,470	2,544	2,484	3,493	1,297	1,464	76,885
1887, six months to Dec. 31, 1886.	12,306	5,059	5,043	2,787	1,209	1,104	2,004	507	500	30,950
January and February, 1887.....	5,404	292	1,604	1,317	261	465	758	97	202	10,544

Cases disposed of in fiscal year—	Increase.								
	Invalid.			New Dis.			Widows, &c.		
	Admitted.	Rejected.	Returned on review.	Admitted.	Rejected.	Returned on review.	Admitted.	Rejected.	Returned on review.
1884.....	17,273	5,144	2,100	1,333	247	132	222	18	25
1885.....	26,801	11,227	2,569	3,141	588	90	227	26	24
1886.....	33,110	39,599	2,846	3,201	2,358	706	252	51	68
1887, six months to Dec. 31, 1886.	17,102	16,407	1,522	1,742	1,093	385	153	31	34
January and February, 1887.....	7,209	4,805	705	1,381	298	140	86	8	13

Report for fiscal years ending June 30, 1884, 1885, &c.—Continued.

Cases disposed of in fiscal year—	Number of days absent.	Number of days on other work.	Original to southeast division.	Increase to southeast division.	Special examiners' reports examined.	Number of reviewers.
1884.....	1, 333	212	628	659	7, 573	63
1885.....	764	622	469	581	11, 829	69
1886.....	1, 467	325	692	1, 867	13, 614	83
1887, six months to Dec. 31, 1886	1, 278	814	431	845	5, 714	74
January and February, 1887.....	50	486	154	225	1, 684	68

The foregoing figures are the exact figures in the footings of the various columns in the five sheets respectively, and have not been verified by the committee, except only the figures under the headings, "Number of days absent," "Number of days on other duty," and "Number of reviewers." Under the heading "Number of reviewers" is given the number of the names of reviewers as stated by name on each sheet, and under the headings "Number of days absent" and "Number of days on other duty" is given the result of the figures opposite the name of each reviewer as counted by the committee. In the sheet for 1885 the footing of the column "Number of days absent" is stated at 764, while the figures given, correctly added, make 1,382 days absent. On each sheet is a statement of the actual number of days' work performed, number of days possible, days absent, on detached or other duty, average number of cases by all the reviewers per day, and by each reviewer per day, and total number of cases disposed of, the figures of which are given in following tabulated statement, just as stated on said sheets, to wit:

In fiscal year ending—	Total days' work by board.	Possible work days.	Days absent.	Days detached.	Average number of cases by board per day.	Average number of cases by each reviewer per day.	Special examiners' reports examined.	Total cases disposed.
June 30, 1884.....	9, 886	11, 272	1, 169	217	265 $\frac{1}{3}$	8 $\frac{1}{3}$	7, 573	80, 686
June 30, 1885.....	12, 066	14, 099	1, 408	625	340	8. 4	11, 829	101, 985
June 30, 1886.....	13, 022	14, 787	1, 440	325	531 $\frac{41}{303}$	12. 1	13, 614	160, 934
Six months fiscal year 1887 to Dec. 31, 1887.....	6, 475	9, 655	2, 849	531	456	10. 5	5, 714	70, 264
January and February, 1887.....	2, 375	2, 910	51	484	529 $\frac{5}{12}$	10. 7	1, 684	25, 412

BOARD OF RE-REVIEW.

Report of the board of re-review, Bureau of Pensions, on the methods of business and work, as requested by Senate Select Committee and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., April 4, 1887.

Mr. COMMISSIONER:

I beg to submit herewith my report of the work of this board, as far as the records will allow, in answer to the requirements of the Senate Select Committee.

Very respectfully,

F. W. POOR,
Chief, Board of Re-Review.

Hon. J. C. BLACK,
Commissioner of Pensions.

Statement showing the principal items of business transacted in the board of re-review of the Pension Office, Department of the Interior.

The principal items of business transacted in the board of re-review are the re-review of all classes of pension and bounty land claims, whether for favorable or unfavorable action, and in addition such special work as may be assigned it by the Commissioner of Pensions.

The re-review of a claim involves the examination of all the claimant's allegations, the reports of the War or Navy Departments, as the case may be, bearing upon the claimant's service, and the parol testimony bearing upon the origin of his disability, and the fact of its continuance and the degree thereof, from the date of his discharge from the service; and in many cases this includes voluminous reports of testimony taken by the special examiners of this office.

Statement showing in detail the methods of transacting business in the board of re-review of the Pension Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the ——— office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

The principal item of business transacted by the board of re-review is the re-review of all classes of pension and bounty land claims.

These claims are received from the board of review with the action of the adjudicating divisions and the board of review indorsed on the briefs thereof. They are then taken by the file clerks and charged to the clerks of this board, whose duty it is to re-review them.

If the preceding action is for approval, and the re-reviewer concurs, the cases are then forwarded to the medical referee for his action.

If the action for approval is non-concurred in, the case is returned to the board of review, with a statement of the grounds thereof.

The case then receives the personal consideration of the chiefs of the two boards, and if they should disagree as to its disposition the question is decided by the Commissioner of Pensions.

A like course is followed should a question arise as to the rejection of a claim.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the board of re-review, in the Pension Office:

Character of business.	Received during 1885.	Disposed of in 1885.	Received during 1886.	Disposed of in 1886.	Received during 1887.	Disposed of in 1887.	Pending March 1, 1887
Pension claims...	19,426	19,426	72,447	72,447	19,488	16,545	2,943

As the cases are not expected to accumulate in this board, but that each day's work will dispose of the receipts, the records do not show the number of cases undisposed of prior to March 1, 1887.

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employes in the board of re-review of the Pension Office, Department of the Interior:

Character of business.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1885.												
Re-reviewing pension claims...							115	338	325	317	325	217
1886.												
Re-reviewing pension claims...	218	196	335	229	239	276	179	206	254	260	208	291
1887.												
Re-reviewing pension claims...	210	237	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The falling off in the average since 1885 is due to the fact that cases have been more closely scrutinized, consequently more time has been required upon each case.

The following statement shows the average number of employés in the board of re-review of the Pension Office, Department of the Interior, during the periods specified:

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1885.....							11	11	14	14	14	18
1886.....	26	31	22	27	30	30	27	30	32	35	33	28
1887 (to Mar. 1).....	43	43										

The present force is divided as follows: 1 chief of the board; 1 chief of section; 37 re-reviewers; 4 file clerks and type-writers.

The following statement shows the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified, in the board of re-review of the Pension Office Department of the Interior:

[Re-reviewing pension claims. Employé doing the most. Maximum.]

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1885.....							239	734	734	540	666	554
1886.....	411	434	733	500	338	326	369	280	273	514	399	559
1887 (to March 1).....	629	566										

[Re-reviewing pension claims. Employé doing the least. Minimum.]

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1885.....							60	311	160	43	383	1
1886.....	229	233	151	245	191	176	43	219	207	217	203	142
1887 (to March 1).....	199	189										

Up to July 22, 1885, the re-reviewers were a part of the board of review, and the report of their work was incorporated in that of that board, which accounts for no report being submitted prior to that date.

A statement of the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the board of review of the Pension Office, Department of the Interior, cannot be given, as no record has been kept in the board, but was made a matter of daily report to the chief clerk of the office. The employés in this board have devoted the entire official hours of labor to the transaction of the business intrusted to them, except for the time when they have been officially authorized to be absent from their duties.

A statement of the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the board of re-review of the Pension Office, Department of the Interior, during the periods specified cannot be given, as no record of time has been kept in the board, but all absences have been made a matter of daily report to the chief clerk of this office.

CERTIFICATE DIVISION.

Report of the certificate division, Bureau of Pensions, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., April 2, 1887.

SIR: I have the honor to transmit herewith, in obedience to your instructions, statements showing the business of this division from July 1, 1883, to March 1, 1887, in so far as the records on file show it.

Very respectfully,

J. E. SMITH,
Chief of Division.

To the Hon. COMMISSIONER.

Statement showing the principal items of business transacted in the certificate division of the Pension Office, Department of the Interior.

- (1) The issue of pension certificates, the necessary accompanying papers, and making proper record of the same.
- (2) The adjudication of claims for duplicates of lost or destroyed pension certificates.
- (3) The transfer of pensioners' names from one agency roll to another upon change of residence.
- (4) Certifying title (disability) to the Surgeon-General on applications for artificial limbs, commutation therefor, and for trusses.
- (5) The preparation of reports, viz: (a) disabilities (classified) for which pensions are granted; (b) admissions by States and counties; (c) admissions by names and residences, for newspapers; (d) special-act cases; (e) miscellaneous, as called for, such as "amputation cases on the rolls," "amounts due at first payments," &c.
- (6) Miscellaneous correspondence.

Statement showing in detail the methods of transacting business in the certificate division of the Pension Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the certificate division of the office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each until the same is finally disposed of and notice thereof duly given to the proper party.

The principal business of this division is the issuing of pension certificates and other papers necessary to provide for the payment of the claims adjudicated and admitted by other divisions of the Bureau.

PROCESS OF ISSUE.

The admitted briefs, bearing the approval of the legal reviewers and medical referee, together with all the papers pertaining to each case, are received from the board of review at 3 p. m. each day for the following day's work. They are arranged by the division messenger, alphabetically, and placed on tables convenient to the entry clerks. The course then taken is as follows:

(1) Each case is entered upon the permanent record by name, the certificate number it will bear, service and agency where payable.

(2) The papers are then distributed to the writers, who make up therefrom the pension certificates and orders on the proper pension agents to inscribe the names on their rolls and make payment.

(3) The certificates and orders to inscribe are carefully reviewed in connection with the briefs, each paper being initialed by the reviewer.

(4) The certificates are then arranged in classes—original, increase, reissue, invalids, widows, &c.—counted, and, with the briefs and a report slip, showing the day's issue in detail, sent to the Commissioner's room for examination and signature.

(5) The "orders to inscribe" and claim papers go to the jacket section, where the proper "admitted jackets" are made up, the papers inclosed therein, and an "admission slip" (showing the issue) prepared for the adjudicating division from which the claim emanated.

(6) The papers are then taken by the notice section, where notices of admission are prepared in each case for the claimant, the proper accounting officer of the Treasury, the attorney, and an order made for payment of the attorney's fee, if any.

(7) The case, order to inscribe, and notices are then forwarded to the mailing section, where they are classified and applied to their proper certificates as these are returned from the Secretary's office signed and sealed, placed in addressed envelopes, sealed, and sent to the mail division of the Bureau for transmission to the post-office.

(8) After the dates of issue and mailing are indorsed on the jackets the cases are handed to the report clerks, who make up slips showing allowances by States and counties, for the division record, and allowances by names and residences for the newspapers publishing reports of daily issues.

(9) The record clerks then complete the permanent record (begun by the entry clerks) by adding the rates, dates of commencement, termination, disability, amounts due, &c., and make a list of new disabilities for the disability record. The cases then go, finally, to the record division of the Bureau, and from there to the admitted file rooms.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the division of certificates in the office of Commissioner of Pensions:

Character of business.	Received during 1883-'84.	Disposed of in 1883-'84.	Pending July 1, 1884.	Received during 1884-'85.	Disposed of in 1884-'85.	Pending July 1, 1885.	Received during 1885-'86.	Disposed of in 1885-'86.	Pending July 1, 1886.	Received during 1886-'87.	Disposed of in 1886-'87.	Pending Mar. 1, 1887.
Pension certificates, (recorded, written, reviewed, mailed).....		57,930			74,631			81,247			55,316	
Orders to inscribe.....		57,930			74,631			81,247			55,316	
Notices to accounting officers.....		53,711			72,252			78,866			53,761	
Notices to claimants.....		58,130			74,631			81,247			55,316	
Notices to attorneys.....		*38,695			54,404			64,997			39,288	
Fee orders.....		*15,000			28,134			35,115			24,530	
Case-jackets.....		39,192			48,053			53,574			46,226	
Transfer notices.....		4,868			3,909			5,720			3,552	
Permits.....		1,226			1,116			1,191			843	
Accrued pension claims.....	2,156	1,848	308	2,136	2,096	348	2,301	2,237	411	965	†806	
Claims for duplicate certificates.....	1,030	989	41	889	894	36	853	842	47	493	489	51
Letters written.....		4,452			5,010			6,706			6,726	
Total.....											342,169	

* Estimated.

† Action on accrued pension claims ceased in this division November 16, 1886, and the pending claims (570) were turned over to the adjudicating divisions.

Average number of clerks employed in 1883-'84, 50; 1884-'85, 47; 1885-'86, 48; 1886-'87, 50.

The principal work of this division—the issuing of pension certificates and accompanying papers—being completed each day, there was nothing of that class pending at the beginning of the fiscal year, nor undisposed of at its close.

There is nothing on file to show the number of claims for accrued pension and for duplicate certificates on file July 1, 1883.

The following statement shows the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified in the certificate division of the Pension Office, Department of the Interior:

[Pension certificates and orders to inscribe written.—Employé doing the most.—Maximum.]

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1886.....							905	772	1,105	1,407	1,041	1,025
1887 (to March 1).....	1,145	1,006										

[Pension certificates and orders to inscribe written.—Employé doing the least.—Minimum.]

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1886.....							392	765	832	884	484	504
1887 (to March 1).....	525	885										

For prior years no record is found on file.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the certificate division of the Pension Office, Department of the Interior:

Year.	Number of employés.	Average number of days present.	Average number of hours employed daily.	Remarks.
1884.....	54	259	6½	Six clerks assigned temporarily, one to three months.
1885.....	49	264	6½	
1886.....	53	267	6½	Five clerks assigned temporarily, one to three months.
1887 to March 1.	52	45	6½	

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the certificate division of the Pension Office, Department of the Interior, during the periods specified :

	1884.	1885.	1886.	1887 (to Mar. 1).	Character of business.
Maximum number of days	278	277	277	48	Writing certificates, notices, &c.
Minimum number of days.....	188	225	203	.....	Do.

AGENTS' DIVISION.

Report of the agents' division, Bureau of Pensions, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., March 31, 1887.

SIR: In response to your verbal direction that I furnish certain information pertaining to the work of this division called for by the Hon. F. M. Cockrell, chairman of the Senate Select Committee, in his communications addressed to the Secretary of the Interior, March 18, 1887, copies of which were transmitted to this Bureau by departmental circular of March 23, 1887, I have the honor to report :

BUSINESS ASSIGNED TO AGENTS' DIVISION.

It has control of all appropriations for the payment of Army and Navy pensions, arrears of Army and Navy pensions, fees and expenses of examining surgeons, salaries of pension agents, clerk hire, rents, fuel, lights, and contingent expenses at the eighteen agencies for the payment of pensions.

It issues requests on the Secretary of the Interior for requisitions for all warrants on the Treasury under each of the foregoing items of appropriation, and upon all settlements made by the accounting officers of the Treasury for lost checks, refundments, and reimbursements under section 4718, R. S.

It receives and records the accounts (weekly, monthly, and annual) of the pension agents, and examines and prepares for approval the expenses of the agencies upon accounts submitted monthly.

It keeps records of all disbursements for all purposes by the pension agents and of the balances of pension funds to their official credit, as well as of all other disbursements chargeable to any of said items of appropriation, and of the balances of each in the Treasury of the United States.

It keeps the pension agents supplied with all necessary funds for payments under each item of appropriations before recited, as well as with all records, pension vouchers, blank checks, and other blanks needed for their official use.

It is charged with the examination and preparation for approval of all official bonds of pension agents and of all leases for quarters for pension agencies, and with all correspondence relative to the qualification and duties of said agents.

It receives and records monthly reports from each of the eighteen pension agents, showing the additions and losses to their rolls in each class of pensioners, viz: Invalids, widows, minors, mothers, fathers, survivors of the war of 1812, widows of the war of 1812, survivors of the war with Mexico, and widows of the war with Mexico.

It is charged with the settlement of all claims under the following described acts:

January 25 and March 3, 1879: Granting arrears of pensions.

March 1, 1879: Granting civil service arrears.

March 3, 1883: Granting increase from \$18 to \$24 and from \$24 to \$30 for certain disabilities.

March 3, 1885: Granting \$37.50 per month for amputations at the shoulder joint.

March 19, 1886: Granting increase to \$12 per month to widows, minors, and dependents.

August 4, 1886: Granting an increase from \$24 to \$30 per month, and from \$30 to \$36 and \$45 per month for certain disabilities. It also issues all supplemental certificates under said acts of March 19 and August 4, 1886.

It is charged with the duty of explaining to the proper pension agents the money value of all allowances covering periods for which pension was previously allowed; the cases in point being described as "reissues."

It is charged with all correspondence with pension agents and accounting officers of the Treasury in explanation of the official action of this Bureau; in directing the payment of all attorneys' fees when certified by the law division; in acceptance or rejection for payment of vouchers submitted by the agents to this Bureau for consideration; with regard to complaints from pensioners and others relative to delays on the part of pension agents in the payment of pensions; also with pensioners and others relative to title to pension under any of the acts hereinbefore referred to.

It is charged with the duty of depositing in the Treasury of the United States all monies illegally paid out of pension funds and recovered through the special examination division and referred to this division for that purpose, as well as with the essential correspondence with the Secretary of the Treasury in explanation of the said recoveries in order that they may be covered into the Treasury to the credit of the proper appropriation; and of making all computations of illegal or other improper payments to pensioners, and also in collating the necessary data for certain tables in the Commissioner's annual report, and in the preparation in proper form of said tables.

It is charged with the duty of submitting weekly a tabulated statement showing the amount of funds to the credit of each of the eighteen agents for the payment of pensions under each item of appropriation; and, since March 7, 1887, it has furnished a weekly report to the Commissioner for transmission to the Secretary of the Interior, under a system inaugurated just prior to that date, showing the amount and character of work, in the aggregate, performed by the division.

It will be seen from the foregoing statement that the work pertaining to this division is of an exceedingly varied character. It is largely of a nature to require immediate attention, and that each day's work shall be performed on that day. Such has been the fact since I assumed charge of the division, September 1, 1885, and, so far as the records show, such has been the fact since its organization.

For this reason I believe there was no business pending and undisposed of in this division on the 1st day of January, 1884, or on the 1st day of January, 1885, and I personally know that there was no business pending and undisposed of January 1, 1886, or January 1, 1887.

It is impossible to state the amount of work received and disposed of during any of the periods mentioned in the communication of the chairman of the Senate Select Committee, either by calendar or fiscal years, nor is it possible to state either the maximum or minimum work performed during any of said periods by any particular clerk of this division, for the reason that no record has been kept of work performed in this division, either by years or by individuals, other than the current letter books, and other records, and for the further reason that in a large amount of the work performed the files of the respective pension cases contain the only record of the action taken.

In certain classes of special work assigned to this division from time to time, records have been kept of the amount performed by the division as a whole, and which can be reported more conveniently by fiscal years.

ARREARS OF PENSIONS.

During the fiscal years 1884,, 1885, 1886, and to March 1, 1887, arrears of pensions were allowed under acts of January 25, and March 3, 1879, by this division, as follows:

1884	116
1885	70
1886	93
1887 (to March 1, 1887)	33
Total	<u>312</u>

REISSUES.

During the fiscal years 1886, and 1887 to March 1st, instructions have been given to pension agents in reissue cases, as follows:

1886	3,314
1887 (to March 1, 1887)	3,275
Total	<u>6,589</u>

INCREASE UNDER ACT MARCH 3, 1885.

Under the act of March 3, 1885, granting increase for amputations at the shoulder-joint, the following number of cases have been allowed:

1885	75
1886	227
1887 (to March 1, 1887)	18
Total	<u>320</u>

INCREASE UNDER ACT MARCH 19, 1886.

Between March 19, 1886, and June 30, 1886, there were issued under the act of March 19, 1886, increasing the pensions of widows, minors, and dependents, supplemental certificates, 79,939.

INCREASE UNDER ACT AUGUST 4, 1886.

Under the act of August 4, 1886, increasing pensions for certain disabilities, there have been issued up to March 1, 1887, supplemental certificates, 8,988.

METHODS OF TRANSACTING BUSINESS.

In answer to so much of the Select Committee's letter as refers to the methods of transacting business of this division, I have the honor to submit the following examples:

Bonds.—Whenever a commission is issued by the President of the United States to a pension agent, a bond is required before he is permitted to qualify and disburse the public funds. When such a commission is received in this Bureau from the President, through the Secretary of the Interior, the proper blanks and instructions are prepared in this division, setting forth the amount of bond which will be required, the manner of executing said bond, and the character and amount of the different kinds of property upon which the sureties will be permitted to justify. After receiving the approval and signature of the Commissioner, the papers and instructions are transmitted to the appointee for execution by him and return to this Bureau. Upon their receipt they are carefully examined, and if found to comply with existing laws and the regulations of the Department, the bond receives the signature of the Commissioner in recommendation of its approval, and is then transmitted to the Secretary of the Interior for examination and approval, as required by section 4779, Revised Statutes. In the event of its approval it is returned to this Bureau, and to this division, where a copy of said bond is made for retention, and after a record has been made of all the material names, dates, and amounts the original bond is transmitted to the Second Comptroller of the Treasury Department, its final custodian, with the proper notice of the pension agent's appointment and information as to the date on which he will assume charge of his agency. A similar notice is addressed to the proper Auditors of the Treasury Department. The commission from the President, and full and explicit instructions touching his official duties, are then transmitted to the appointee, and to the outgoing pension agent (if any) instructions are also sent relative to surrendering the agency to his successor, to the proper receipts for all Government property for which he is responsible, and touching the deposit of the unexpended balances of all public funds to his credit.

Funds for pension agents.—When the necessity exists for placing funds to the credit of the pension agents, which is a matter of constant occurrence, a request for a requisition, addressed to the Secretary of the Interior, is prepared in this division for the approval and signature of the Commissioner, and contains the name of the pension agent, the date and amount of the bond under which he is chargeable, the amount of the credit which he is to receive, the depository in which the amount is to be placed, and the appropriation to which the credit is to be charged. After this request has received the approval and signature of the Commissioner, it is recorded in this division, and is transmitted to the division of stationery and accounts of this Bureau, where it is also recorded. It is then forwarded to the Secretary of the Interior, and remains on file in the disbursing office of the Department, where the requisition on the Treasury, pursuant to said request, is prepared, and after receiving the signature of the Secretary of the Interior, and being properly recorded by the disbursing clerk, is forwarded to the Second Comptroller, in the pension division of whose office it is examined and recorded, and after receiving the approval and signature of the Second Comptroller is sent to the Third Auditor of the Treasury, in the book-keeper's division of whose office it is again recorded and then receives the signature of the Third Auditor. It is then transmitted to the warrant division in the office of the Secretary of the Treasury,

where the requisition remains on file. A warrant on the Treasury is then prepared by this division of the office of the Secretary of the Treasury. It receives the signature of the Secretary of the Treasury, and is then forwarded to the First Comptroller of the Treasury, in whose office it is recorded, and after having been signed by the Comptroller is transmitted to the Register of the Treasury, where it is again recorded, and after having been signed by the Register of the Treasury is forwarded to the Treasurer of the United States, in the accounts division of whose office the warrant remains on file, and a draft addressed to the designated depository mentioned in the request from this Bureau, for the desired amount, is prepared and receives the signature of the Treasurer of the United States, after which it is mailed to said depository, who, upon its receipt, sends a formal notice thereof to the pension agent to whose credit the funds are placed, and who is then, and not until then, authorized to draw against said credit.

Monthly expense accounts.—Promptly at the close of each month each pension agent is required to furnish to this Bureau, upon blanks prepared and sent to him for the purpose, an expense account for all the expenses incurred by him during said month, and itemized according to the terms of the appropriation providing for the payment of such expenses, and accompanied by a receipt or voucher for each amount under each item of such expenditure. These accounts are promptly sent to this division, where they are carefully examined, and, if found proper, they are prepared for the signature of the Commissioner in recommendation of their approval and recorded. They are then sent to the stationery and accounts division of this Bureau, where they are again recorded, and after receiving the approval and signature of the Commissioner they are transmitted to the Secretary of the Interior for his examination and approval, as required by the terms of the law making said appropriations. They are then returned to this division where, after completion of the record, they are transmitted to the proper pension agent, who is then authorized to take credit for said expenditures in what is known as his monthly account current, and who then forwards said expense accounts to the Third Auditor of the Treasury Department as a voucher for the total amount expended. These expense accounts are furnished to this Bureau in duplicate, and the duplicate is retained on file in this division.

Increase under act of August 4, 1836.—When, upon application by a pensioner or for any other reason, it appears that a pensioner is entitled to consideration under the act of August 4, 1836, before alluded to, the papers of said case are drawn from the admitted files, the papers are examined, and, if necessary, are prepared and sent to the medical division of this Bureau, that an examination of the degree of the pensioner's disability may be ordered to be made at or near his home by our duly authorized examining surgeons, if thought essential.

Upon receipt of the certificate of the said examining surgeons the case is considered by the medical division, and the opinion is expressed by the medical referee whether, and if so, at what rate, the pensioner is entitled to increase under said act. The case, with this opinion (in writing), is then returned to this division, where a supplemental certificate authorizing the rate found by the medical division to be due to the pensioner is prepared, and after the whole action has been carefully reviewed and a record thereof made, said certificate is forwarded for the signature of the Commissioner, and then for the signature of the Secretary of the Interior and the seal of the Department. It is then returned to this division, from which it is duly mailed to the proper pension agent, who makes an entry upon the rolls of his agency of the increased rate and date of commencement, and then transmits said certificate to the pensioner, with the voucher for the amount due thereon. A formal notice of this action is also sent by this division to the proper Auditor of the Treasury.

The foregoing is submitted as a sample of the methods of transacting business in four of the matters assigned to this division.

CLERICAL FORCE AND HOURS OF WORK.

Since I assumed charge of this division, September 1, 1835, the average number of clerks permanently employed on the work of this division has been about fourteen. Twice since that date the clerical force has been temporarily increased in order to accomplish speedily special work under the act of March 19 and August 4, 1836, assigned at these different times to be performed by this division, never, however, making the total number exceed twenty-four, and continuing for a few weeks only at this number. Except annual and sick leave, the force of this division has been employed regularly during all the hours of service fixed by law, and in some instances longer, except in two cases, in which the time absent in excess of that granted by law and the departmental regulations was deducted from the pay of the absentees.

No record has been or is now kept in this division of the amount or character of work performed by individual clerks, either by days, months, or years, for the reason that the miscellaneous character of the work renders such an individual record impracticable. It would require nearly as much time for the individual clerks to keep

such a record as it would to perform the work itself. But as before stated, the clerks of this division are required to labor during the full legal hours, and the work is always kept up to date.

Respectfully submitted.

Hon. JOHN C. BLACK,
Commissioner of Pensions.

H. C. BELL,
Chief Agents' Division.

NOTE.—See supplemental report, following.

Supplemental to report of March 31, 1887.

AGENTS' DIVISION, DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., April 1, 1887.

SIR: In response to your verbal direction of this date that I furnish the "number of employes in the pension agencies, exclusive of the agent, the agencies to be considered collectively as well as individually in this connection; to include all persons who, though direct employes of the Government, were not appointed by the President or the Secretary of the Interior, as required by the letter addressed to you on the 29th instant by Hon. H. L. Muldrow, Acting Secretary of the Interior, I have the honor to submit the following report:

On the 1st day of March, 1887, as shown by the expense accounts of the pension agents, on file in this Bureau, there were employed a total of 175 permanent clerks at the agencies, distributed as follows:

Augusta	6	Milwaukee	8
Boston	13	New York	10
Chicago	19	Philadelphia	8
Concord	7	Pittsburgh	10
Columbus	20	San Francisco	2
Des Moines	9	Syracuse	8
Detroit	9	Topeka	8
Indianapolis	12	Washington	11
Knoxville	9		
Louisville	6	Total	175

In addition to the permanent force employed as indicated above, and to enable the pension agents to make the regular quarterly payments promptly, an additional force is employed at nearly all of the agencies during each quarter, for periods ranging from one to three weeks. During the December, 1886, quarter (the March, 1887, quarter not having been reported) this force aggregated 145, and was distributed as follows:

Augusta	6	New York	19
Chicago	2	Philadelphia	16
Columbus	13	Pittsburgh	2
Concord	2	San Francisco	1
Des Moines	4	Syracuse	27
Indianapolis	22	Topeka	10
Knoxville	2	Washington	14
Louisville	1		
Milwaukee	4	Total	145

Respectfully submitted.

Hon. JOHN C. BLACK,
Commissioner of Pensions.

H. C. BELL,
Chief Agents' Division.

RECAPITULATION.

The following statement shows the principal items of the special business transacted in the Agents' Division of the Bureau of Pensions Office.

Arrears of pension:	
1884	116
1885	70
1866	93
1887 (to March 1)	33
Total	312

Reissues:		
1886.....	3,314	
1887 (to March 1)	3,275	
Total	6,589	
Increase under act March 3, 1885:		
1885.....	75	
1886.....	227	
1887 (to March 1).....	18	
Total	320	
Increase under act March 19, 1886:		
March 19 to June 30, 1886	79,989	
Increase under act August 4, 1886:		
August 4, 1886, to March 1, 1887	8,988	

Number of permanent employés at pension agencies, March 1, 1887.

Augusta	6	Milwaukee	8
Boston	13	New York City	10
Chicago.....	19	Philadelphia	8
Columbus	20	Pittsburgh	10
Concord.....	7	San Francisco	2
Des Moines.....	9	Syracuse	8
Detroit	9	Topeka	8
Indianapolis	12	Washington.....	11
Knoxville	9		
Louisville.....	6	Total.....	175

Number of temporary employés at pension agencies for short periods while making quarterly payments, due December 4, 1886.

Augusta.....	6	New York City	19
Chicago.....	2	Philadelphia	16
Columbus	13	Pittsburgh	2
Concord.....	2	San Francisco	1
Des Moines.....	4	Syracuse	27
Indianapolis	22	Topeka	10
Knoxville	2	Washington.....	14
Louisville	1		
Milwaukee	4	Total.....	145

STATIONERY AND ACCOUNTS DIVISION.

Report of the stationery and accounts division, Bureau of Pensions, on the methods of business and work, as requested by Senate Select Committee and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., April 1, 1887.

SIR: In compliance with your instructions that the various chiefs of divisions furnish you, in so far as it is possible, with the information called for in the circular letter of Hon. F. M. Cockrell, chairman of the Select Committee of the Senate, I have the honor to submit the following report from the stationery and accounts division:

This division was organized June 1, 1886, and the time between that and July 1, the beginning of the next fiscal year, was consumed mainly in formulating the methods of work to be pursued and securing the necessary record books, file cases, &c., so that the work of the division could be fairly inaugurated by July 1, 1886.

DUTIES OF THE DIVISION.

The duties of the division are to audit and approve all accounts of whatsoever nature pertaining to the Bureau of Pensions after they have been passed upon by the respective chiefs of divisions to which they apply, and to charge these accounts.

to the proper appropriations; to make requisition on the Secretary of the Interior for all stationery used by the Bureau, and to issue the same on requisitions, when properly approved, to the various divisions and employés of the Bureau, charging the articles to the divisions or individuals drawing; to make requisitions on the honorable Secretary of the Interior for the engraving and printing and binding of all pension checks, pension certificates, blanks, envelopes, record books, and publications used by the Bureau of Pensions, the pension agencies, and the pension examining surgeons throughout the country, and the issuing of the same on properly approved requisitions.

METHOD OF TRANSACTING BUSINESS.

The principal accounting work of this division is in connection with the pension examining surgeons throughout the country, who number about twenty-five hundred. The certificates of examination, together with the orders for examination, and the daily reports of the persons examined, when they are received by the mail division of this Bureau, are transmitted to the medical division, where the certificates are examined and accepted or returned for correction, as the case may be, and the daily reports so checked and forwarded to the stationery and accounts division. When the reports are received in this division, they are stamped with the date of receipt, and, after being scrutinized to see if they are properly checked, are turned over to the clerk who keeps the day-book, when he calculates the number of examinations and the amount of fees due, and makes the entry, showing the name of board or surgeon, the town, county, and State, the number accepted, with the amount of fees, and the number returned for correction, with the amount of fees. This record is so arranged that at any time the total number of examinations that have been made during the fiscal year, with the cost of the same, can be told, together with the number that have been returned for correction to the surgeons, the number that have been received back corrected and credited, and the number still outstanding.

After the entries have been made in the day-book, they are turned over to the two employés who keep the ledger accounts with each board, single, civil, special, expert, and foreign surgeons. These ledgers are so arranged that each county and State comes in alphabetical order, and the number of examinations and the amount of fees for any particular surgeon or board can be found almost instantly, and if necessary, with a little labor, the amount of work done in each county or State. The ledgers and day-book are kept closely checked with each other to avoid any discrepancies, and the daily reports are filed in the division for reference.

At the end of each quarter the quarterly account of each board or surgeon is rendered in duplicate, and, after being certified as correct by the medical division, it is forwarded to this division, when, if it agrees with the ledger account and with the daily reports with which it is compared, it is indorsed as correct and sent to the Commissioner for his approval, and then returned to the board or surgeon to be presented to the proper pension agent for payment. If there is any discrepancy between the quarterly account and the books of this Bureau, it is returned for correction, unless it be merely a mistake in charging the proper fee fixed by law. In such cases the account is approved for the amount which the law fixes for the number of examinations reported.

Every account when it is closed on the ledger by the approval of the quarterly voucher is entered upon a book, which is called "A Register of Vouchers Approved," and which shows at any time the number of examinations, with their cost, which have been approved, the date of approval, the name of the board or surgeon, and the place, the character of examinations, whether by board, single, civil, special, expert, or foreign surgeons, and whether the applicants were of the Army or Navy, and the agency at which it is payable, the total amount being the liabilities against the appropriation.

This division also scrutinizes and audits the monthly and semi-monthly expense accounts of all special and detailed pension examiners in the field, after they have been approved by the chief of the special-examination division, the amount of their per diem and expenses being charged to the respective appropriations to which they apply. They are then transmitted to the Commissioner for his approval, after which they are forwarded to the Secretary of the Interior for his approval before being finally sent to the disbursing officer for payment.

In addition to the foregoing, this division keeps an account of all expenses of the pension agencies for whatever purpose, and of the appropriations for Army and Navy pensions, for fees of examining surgeons, and for clerk hire, fuel, light, and contingent expenses of the pension agencies. All requisitions for funds drawn against these various appropriations by the agents' division on the Secretary of the Interior pass through this division for record before being forwarded to the Secretary.

The books of this division are checked with the books of the agents' division each week, and every Monday morning there is a statement made to the honorable Secre-

tary of the Interior of the condition of every appropriation for the Bureau of Pensions, for the pension agencies, for the payment of Army and Navy pensions, and for the fees of examining surgeons.

THE AMOUNT OF WORK PENDING.

This division only being organized last June, it is of course impossible to furnish any data for prior years. The work of the division is entirely current, and it is not allowed to accumulate, it being a rare instance for any work to remain in the division undisposed of for twenty-four hours, consequently we have no pending work on hand to report.

AVERAGE NUMBER OF EMPLOYÉS.

The average number of employés in this division has been nine, and at no time has there been to exceed eleven, and for only two or three weeks was that number employed. The employés commence work at 9 a. m., and, with the exception of a half hour for lunch, from 12.30 to 1 o'clock p. m., work until 4 p. m., except when it is necessary to work later to complete some special or pressing work, when they have several times worked over hours. In no case has a single clerk in this division been absent for the full amount of time which the rules of the Department allow for leave of absence with pay.

AMOUNT OF WORK PERFORMED BY EMPLOYÉS.

It is impossible to give the amount of work performed by each individual employé, as no such record has been kept. I can only say in general terms that three persons are employed in the stationery and printing branch of the work, while the others are employed on the accounts. The accounting work of the division is so varied and irregular that no one employé is constantly engaged upon one class of work, and in my opinion it would be impracticable to keep a record of this class of work which would convey an intelligible idea of the amount and value of the work performed by each employé.

Very respectfully,

Hon. JOHN C. BLACK,
Commissioner of Pensions.

C. F. GILLIAM,
Chief, Stationery and Accounts Division.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of, at the dates specified below, in the stationery and accounts division of the Bureau of Pensions, Department of the Interior:

Character of business.	Received up to March 1, 1887.	Disposed of up to March 1, 1887.	Character of business.	Received up to March 1, 1887.	Disposed of up to March 1, 1887.
Daily reports of medical examinations received, audited, and entered on day book and ledgers.....	25,031	25,031	Requisitions on the Secretary of Interior for printing, engraving, and binding.....		517
Quarterly accounts of examining surgeons audited, approved, and recorded in register.....	5,521	5,521	Blanks and envelopes received and distributed....	7,746,375	7,746,375
Special examiners' expense accounts received, audited, approved, and charged to proper appropriations.....	2,115	2,115	Record books received and distributed.....	1,664	1,664
Requisitions for funds for pension agents and reimbursement requisitions entered and charged to various appropriations.....	2,450	2,450	Reams of paper received and distributed.....	598	598
Requisitions on the Secretary of Interior for stationery and miscellaneous supplies.....		145	Commissioner's report and laws and regulations.....	35,000	35,000
			Division and personal requisitions filed in Bureau.....	3,344	3,344
			Requisitions packed and shipped to the special examiners and examining surgeons.....	4,578	4,578

It is estimated that the amount of blanks, &c., distributed equals the amount received, as the stock on hand is kept as near the same as possible.

The work of the division is entirely current, and is usually disposed of on the same day as received.

SUPERINTENDENT'S DIVISION.

Report of the superintendent's division, Bureau of Pensions, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., April 2, 1887.

SIR: In compliance with your request, I have the honor to submit the following statement of the character of the labor performed by the employés of the Bureau of Pensions, coming under the superintendent of building.

The messenger force.—The messenger force is composed of forty-five persons, twenty-five messengers at \$840 per annum, and twenty messenger boys at \$400 per annum. These messengers and messenger boys are assigned to duty in the different divisions of the Bureau in proportion to the number of persons in each division and the character of the work to be performed.

Engineers and firemen.—The law provides for two engineers and three firemen in the Bureau of Pensions. The engineers have charge of the boiler-room and the heating apparatus. The firemen are subject to the orders of the engineers, and, besides watching the fires, assist the engineers in running the pumps, &c.

The watch force.—The watch force is composed of twenty-four persons—a captain, three sergeants, and twenty watchmen. The watchmen are divided into three reliefs; the first watch coming at 8 a. m.; the second at 4 p. m., and the third at 12 midnight. The captain, assisted by one of the sergeants, has charge of the watch from 8 a. m. to 4 p. m., and each of the night watches is in charge of a sergeant. The watchmen have charge of the building and its property, and are held to a strict accountability for the faithful performance of their duties.

The labor-roll.—The labor-roll contains the names of twenty-five persons. These men do the labor work of the bureau—sweeping, scrubbing, and cleaning generally, besides the heavier work of moving furniture, &c. The labor force is none too large for the amount and character of work to be performed.

Charwomen.—The law provides for five charwomen in the Bureau of Pensions. The salaries of these women is \$400 each. They have charge of the ladies' dressing-rooms, pick over the waste paper, &c.

Skilled labor.—The law provides for no skilled labor in the Bureau of Pensions; and as a consequence two copyists have been detailed for duty under the superintendent. One of these men is a carpenter, and the other a gas and steam fitter, and their services could not be dispensed with.

Recapitulation.—The total number of persons doing duty under the superintendent of building is as follows:

Messengers	25	Laborers	25
Messengers boys	20	Copyists	2
Engineers	2	Charwomen	5
Firemen	3		
Watchmen	24	Total	106

I have the honor to be, very respectfully,

W. F. SCHUCKERS,
Superintendent of Building.

Hon. JOHN C. BLACK,
Commissioner of Pensions.

THE GENERAL LAND OFFICE.

DIVISION A.

Report of Division A, General Land Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the A division of the General Land Office, Department of the Interior.

Division A of the General Land Office is immediately under the direction of the chief clerk, whose duties are multiform and quite difficult to enumerate. He has the supervision of the whole force in the office, assigns employés to the respective divisions, makes details and transfers of clerks from one division to another as the exigency of the service may demand, grants all leaves not exceeding one day, examines and

initials all applications for leaves exceeding one day; under his direction and supervision is apportioned the contingent fund for local land offices, and are prepared for the signature of the Commissioner all letters authorizing expenditures for rents, clerks, furniture, and other contingent expenses of local land offices. All requisitions for blanks and stationery for said offices are examined and approved by him.

Under his supervision and requisitions, are issued all stationery supplies to the employés of the office, and he has kept by the stationery clerk an account of all stationery issued to each employé; the stationery clerk being charged with all supplies received and only credited with the approved requisitions of the chief clerk, an account being opened with each employé, showing the amount and date of each article furnished.

The bonds of all bonded officers of this Bureau are examined and initialed by the chief clerk and then submitted to the Commissioner for his signature. All office circulars are required to be placed before him for his examination and initials and then submitted to the Commissioner; all telegrams likewise.

All letters written in Division A are examined, and, if approved, are initialed by the chief clerk before submitting same to the Commissioner. All proposals for bids and contracts for photolithographing maps and plats are made under his supervision and then submitted to the Commissioner.

All departmental and official orders are transmitted through him to employés. He examines the weekly summary report made by the several chiefs of the work done in their respective divisions, corrects the same, if necessary, initials them and then submits them to the Commissioner.

He, in connection with the Assistant Commissioner and the two law clerks, examines the tabulated abstracts of proof of all agricultural entries after the same have been prepared and examined by the board of review. If said tabulated abstracts are approved, the lands are recommended for patent and signed by the Assistant Commissioner, chief clerk, and law clerks.

The chief clerk keeps a record of all moneys received in this office, examines and verifies the weekly report and vouchers of the receiving clerk.

It is to him largely that personal applications are made by Senators and Representatives in the interest of their constituents, and other citizens for information relative to the status of claims in which the parties are interested.

The foregoing are some of the many duties devolved upon the chief clerk.

Division A embraces the law clerks, law examiners, registering room, receiving clerk, and the stationery, printing, and file clerk. The last-named clerk keeps record of the leaves of absence of the entire land service. Legal and intricate questions arising in the office, drafts and reports on bills to Congress and matters of special importance are acted upon by the law clerks. The law clerks and law examiners read and initial all letters and communications prepared in all the other divisions before the same are placed before the Commissioner for signature, thereby securing uniform action.

The law clerks examine such cases and matters as the Commissioner directs, and prepare decisions and instructions when so required. They are called upon daily for information, opinions relative to legal questions arising in the administration of the land laws, and the practice of the office and Department and of local land offices. Chiefs of divisions and clerks are permitted to consult the law clerks at any time.

The law clerks also critically read each day and examine as to correctness of law and practice, all letters and decisions prepared in the railroad and special service divisions, and the decisions and instructions relative to surveys and private land claims, and such other letters, decisions and instructions prepared in other divisions of the office as may be specially referred to them by the Commissioner. They also prepare, or examine and revise, under the direction of the Commissioner, important reports to the Secretary upon special matters, and reports to Congress upon bills and resolutions, and prepare, or examine and revise, drafts for circulars of instruction to local land officers, surveyors-general, and special agents. The work is of such varied character that no tabulation of it or comparative statement could be made.

The law clerks are habitually employed at their desks from one to two hours daily beyond office hours.

The registering room receives, opens, briefs, numbers and registers all letters and communications received in this office. The system is thorough and letters are readily found, few or no losses being sustained.

The receiving clerk is a bonded official, receiving all money transmitted to this office. Deposits are made in the United States Treasury at the end of each week, and report transmitted to the Honorable Secretary of the Interior for verification by the Treasury Department. The moneys received are for exemplifications of the records and fees and commissions for lands entered and sold in the States of Ohio, Indiana and Illinois, where the Commissioner is ex-officio register and receiver (act of March 3, 1837). This clerk also has charge of the pay rolls of this office (payments are made semi-monthly), writes letters authorizing the employment of clerks in local land offices

and rent for said offices. All complaints preferred against local officers and surveyors-general are referred to him to examine and write letters therein, and he also writes other miscellaneous letters.

The stationery, printing, and file clerk draws the requisitions and examines the same for issue of stationery supplies, for this office, special agents, local land service and surveyors-general, puts his initials on same and then submits them to the chief clerk for his examination and signature.

Also all printing and binding for the entire land service together with the issue of the same, are dealt with in the same way. He examines the bonds of local land officers and surveyors-general, affixes his initials and then submits them to the chief clerk for his examination, approval, and initials, and writes the letters transmitting the commissions of the above named officers, has charge of the files of the division and writes miscellaneous letters.

Following the mail through the process of registration, it is as follows:

First: All communications addressed to this office are taken to the general registering room; letters are folded in as nearly a uniform size as possible, and if there be sufficient blank space on same, a summary of the contents is written on the back in as brief a manner as the case will admit.

If there be not sufficient blank space on the back of the letter, or if the letter is to be returned to the writer, it is put into a jacket and the brief of contents written thereon.

The next step is to separate the letters into different classes, as follows: Departmental letters, Congressional letters, gubernatorial letters, surveyor-general letters, register and receiver letters, money letters, and miscellaneous letters. When each class has been arranged separately in alphabetical order the letters are each stamped with a number and the date of the receipt thereof, the number running consecutively from No. 1 at the beginning of the calendar year up to the highest at the end of the year.

The letters are then noted on a general index in order according to their number. This index gives the number, initial of writer, class of letter, and the division of the Bureau to which same are delivered. The letters are then registered in the several volumes to which they properly belong and then delivered to the proper divisions. When letters are to be transferred from the division where first sent to another division, or from this Bureau to another department or Bureau, they are again brought to the registering room and the transfer noted in the proper volume opposite the entry of the letter.

In transferring letters from one division to another Department or Bureau the fact is noted both on the index and on the volume in which same were originally registered.

When a letter contains an inclosure a note of the same is made on the back of the letter or on the jacket giving the number of inclosures, and the number of the letter is written on each inclosure.

RECEIVING CLERK.

Under the act of Congress of July 2, 1864, one of the employés of the General Land Office is designated as the receiving clerk, and to his keeping all moneys received at the General Land Office for exemplifications of records, &c., are committed and disposed of as hereinafter mentioned. Letters received at the General Land Office are opened by the Commissioner and assistant commissioner and chief clerk, and those containing remittances are turned over to the receiving clerk, who places each letter in a separate special jacket or envelope, properly briefed, with the name of the writer, the address, date, amount, and purpose for which it is intended.

These letters are then entered by the receiving clerk in a special register of money letters, and then handed to the chief clerk, who keeps a check-list of the name and amount inclosed in each letter.

These letters are then sent to the registering room for registering in the usual manner and reference to appropriate divisions.

When the letters are answered, the division so answering sends the letters to the receiving clerk, who notes upon his register the date of answer and division in which answered, and in case that any fee in excess of the amount required by law has been remitted, the balance is returned to the sender in a registered letter to insure safe delivery.

At the end of each week the receiving clerk deposits in the Treasury of the United States the money received during the week, taking therefor a certificate of deposit.

He then prepares a weekly statement of the gross amounts received, the amount returned to senders or otherwise disposed of, the amount deposited in the Treasury, and his balance on hand.

Statement is examined and verified by the chief clerk and afterwards approved by the Commissioner and transmitted to the Secretary of the Interior.

Statement of business of receiving clerk.

	Money let- ters re- ceived.	Gross cash re- ceipts.	Cash deposited with U. S. Treasury.
Fiscal year ending—			
June 30, 1884	4, 087	14, 523 91	10, 274 76
June 30, 1885	3, 472	10, 083 09	8, 821 85
June 30, 1886	4, 133	12, 449 90	10, 587 40
July 1, 1886, to March 1, 1887.....	2, 631	8, 435 60	7, 100 00

The difference between the amount of cash received and the amount deposited in the United States Treasury was returned to the senders, the sum remitted being in excess of the legal fees required.

The larger difference between the gross amount received and deposited in 1884 was caused by the fact that at that time the office frequently received moneys in substitution for land warrants, which were taken up as cash receipts, and subsequently applied as the law requires in payment for the land. Since 1884 such moneys have been accounted for by the local land officers.

Under act of March 3, 1877.

The Commissioner of the General Land Office as *ex-officio* register and receiver of land offices in Ohio, Indiana and Illinois, has received as follows, and deposited in the U. S. Treasury :

During the fiscal year ending June 30, 1884:		
Sales of land in Ohio.....	\$193 64	
Sales of land in Illinois.....	122 61	
		316 25
<hr/>		
Fees and commissions on sales of land in Ohio.....	12 49	
Fees and commissions on sales of land in Indiana.....	6 00	
Fees and commissions on sales of land in Illinois.....	19 61	
		38 10
<hr/>		
During the fiscal year ending June 30, 1885 :		
Sales of land in Illinois.....	30 90	
Fees and commissions on sales of land in Indiana.....	7 00	
		37 90
<hr/>		
During the fiscal year ending June 30, 1886 :		
Fees and commissions on sales of land in Indiana.....	5 00	
Fees and commissions on sales of land in Ohio.....	1 00	
		6 00
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During the current fiscal year from July 1, 1886, to March 1, 1887, the sum of \$70.89 has been received on account of the foregoing; but final disposition of all the cases has not been made and the exact amounts to be deposited under the respective heads cannot now be determined.

ATTORNEYS' ROOM.

A room in the General Land Office is set apart for the use of attorneys practicing before the office, and is placed in charge of a clerk, whose duty it is to receive from such attorneys as are authorized by departmental regulations to practice before the office proper cards of request for permission to examine such records and papers on the files of the office as they may be entitled to inspect under the rules and to procure from the respective divisions such papers and under his personal supervision permit the same to be inspected and the desired information obtained by copy or otherwise. The records are then returned to their proper places.

Such cards of inquiry average over 500 per week, and their usage in the manner indicated prevents obstruction and delay in the conduct of official business which would necessarily follow were the rooms of the respective divisions open to such visits.

PACKING ROOM.

In this room all plats, both of public surveys and mineral, together with all lists, &c., are mounted on cloth for binding and their better preservation.

During the past year there were mounted 4,500 plats of public land surveys and 1,100 mineral plats, besides a number of railroad selections, &c., requiring 982 yards of ten-quarter cotton cloth. The packer stitches all mineral patents and prepares for mailing all maps, reports, circulars, and heavy packages. He also has in charge the files of circulars issued from time to time by this office.

MESSENGERS AND LABORERS.

This force is under the supervision of one person detailed as chief messenger, and consists of 26 persons.

Eight messengers, 12 laborers, 6 designated as packers, doing service as assistant messengers and laborers. Of the laborers one is detailed to the office of the Secretary. This force does all messenger work and have charge of the rooms and halls occupied by this office.

The foregoing, with the reports from the several divisions, comprises the employés of the General Land Office proper, and there are besides, and under its authority and supervision, the following additional officers and employés:

SURVEYORS-GENERAL.

There are 15 surveyors-general, not including that of Alaska, where the United States marshal is *ex-officio* surveyor-general. No surveys have been made in that Territory. All surveys of public lands are under the immediate supervision of the officers. They are bonded officials and acting disbursing officers, employing their own clerks, renting quarters, &c., under specific appropriation by Congress. Their accounts, as well as all others pertaining to the General Land Office, are audited in this office. They make contract with and approve the bonds of deputy surveyors subject to the approval of this office.

There are employed in the several offices of the surveyors-general 102 persons as clerks, draftsmen, copyists, messengers, and janitors, at salaries ranging from \$120 to \$2,400 per annum.

REGISTERS AND RECEIVERS.

There are 109 local land offices in operation now; 2 (in Nebraska) not as yet opened for business (officers appointed have not qualified) and 1 (in Wyoming) organized by act of March 3, 1887 (no officers have been appointed); total, 112. All local officers are bonded; the receiver is a disbursing agent.

There are employed in these offices 118 clerks at an annual expenditure of \$95,184.09; salaries range from \$500 to \$1,200 per annum, and rents allowed amounting to \$13,946.75.

The field force of this office consists of 78 persons, divided as follows:

Inspector of United States land offices and offices of surveyors-general.....	3
Examiner of surveys.....	4
Examiners of swamp lands.....	7
Fraudulent entries.....	30
Timber depredations.....	27
Custodians abandoned military reservations.....	7

The first named are paid \$2,000 per annum. Swamp land agents, \$1,400 and \$1,500 per annum. Fraudulent land agents, \$1,500 to \$1,600 per annum. Timber depredations, \$1,200 and \$1,400 per annum. Of the custodians of abandoned military reservations, 5 receive salaries ranging from \$25 to \$75 per month. Two receive no compensation. In addition to the salary paid, all are allowed a per diem of \$2.50 (except custodians), and their actual and necessary expenses.

All letters authorizing expenditures for rents, clerk-hire, and furniture for local offices, and all contingent expenses are prepared in division A, also all requisitions for stationery and blanks for local offices and surveyors general.

INSPECTORS.

Three inspectors of United States land offices and offices of surveyors-general constitute a part of the General Land Office. They are appointed by the Secretary of the Interior, and their duties consist in making periodical examinations of the local offices and offices of surveyors-general, giving the officers of the same proper instructions as to the manner of conducting business, correcting informalities, and generally supervising their work so far as may be practicable in the limited time at their disposal. These inspectors are assigned to separate sections of the country in which the offices are located, and they are required to report to this office the result of each inspection made, and the condition of the work in the respective offices, making such suggestions as to the manner of work as their experience demonstrates is essential to

the proper conduct of the same. They also are called upon to investigate any charges affecting the personal or official conduct of the officers, and to report the result of such investigations.

They are also required to make report every week to this office, showing their whereabouts and their occupation each day.

EXAMINERS OF SURVEYS.

Their duties consist in examining surveys in the field, testing measurements, and reporting the exact conditions of surveys as found, describing corners found, noting failures to establish the same, discrepancy in measurement, or any other failures to comply with the contracts and instructions, and carrying out any other instructions issued by this office.

SWAMP-LAND AGENTS.

Swamp-land agents are required to make an examination in the field of lands claimed under the acts of Congress granting swamp and overflowed lands to a number of States, and make detailed reports showing the character of each smallest legal subdivision of land examined. They also examine and report on lands on which indemnity is claimed as swamp and overflowed lands sold by the United States or located with warrants, and attend at the taking of testimony in support of such claims, for the purpose of cross-examining witnesses and taking such other measures as may be necessary to protect the interests of the Government.

SPECIAL AGENTS FOR THE INVESTIGATION OF FRAUDULENT LAND ENTRIES.

Whenever any charges are preferred against an entry or claim by a person other than legal contestant, or there is evidence tending to show fraud, or that the law has not been complied with, the special agent is required to make a thorough and personal investigation of the case. His first duty after conferring with the person who made the charges, if the information was furnished by an individual, is to locate and examine the land, and ascertain its character and present condition and the nature and value of the improvements thereon, and, if the claim is a homestead or pre-emption, the evidences of inhabitancy, cultivation, or improvement during the period covered by the claimant's proof, or, if a desert claim, the evidences of reclamation or non-reclamation of the land within the time required by the law. He then proceeds to ascertain, from any person who may be cognizant of the facts, all the evidence tending to show compliance or non-compliance with the requirements of the law under which the entry or claim was made; the circumstances under which it was made and held; the good or bad faith of claimant; whether the entry was made in the interest of any person other than entryman, and whether or not the land had been conveyed, and in ascertaining this fact the county records are always examined. If the entryman is alleged or supposed to be fictitious, he obtains the evidence of persons who are well acquainted in the neighborhood to show that such person was unknown and could not have lived on the land without their knowledge; and the personal tax list and county record are also examined. All persons who may know any material fact are interviewed and their affidavits taken, if it is deemed necessary and the parties are willing to give them, and the claimant, if he can be found, is advised that he can submit his statement or any evidence he may have favorable to the entry. The agent is required to critically examine and ascertain whether or not the entryman has failed to comply with any requirement of the law under which the entry was made, and to do this he must be familiar with the various land laws and the rulings of the Land Department and the courts thereon. The result of the investigation and all the facts discovered are submitted in a full report to the Commissioner of the General Land Office, who takes the proper action on the entry. Should a hearing be ordered, as is always done on the application of any party in interest, it then becomes the duty of the agent to attend to the service of the notices and procure the attendance of his witnesses, there being no judicial writ or process to aid him. At the trial he acts in the capacity of an attorney for the Government; presents its case, and cross-examines the defendant's witnesses. Whenever the investigation develops a criminal offense against the land laws, the agent presents the facts to the United States district attorney and renders him all possible aid in procuring the evidence of the crime. In cases where suits are brought to vacate land patents or to remove all unlawful inclosures of the public lands, he is relied upon by the United States attorney to obtain the evidence to support or sustain the suit, and to do this efficiently necessitates a thorough investigation of the case and generally a survey of the land involved. The duty of investigating and reporting upon charges of unprofessional conduct of attorneys and agents practicing before the local offices and the Department also devolves upon the special agents, and requires judgment of the highest degree of intelligence. The agents submit weekly reports, showing the work they were engaged on during each day of the week, besides making special reports on the cases investigated.

SYNOPSIS OF THE DUTIES OF SPECIAL TIMBER AGENTS.

Special timber agents are assigned to duty in certain States, Territories, or district, wherein they have a general supervision and charge over all timber upon Government land.

It is their duty to keep themselves thoroughly informed respecting the condition of the timber on public lands in their districts and to protect the same from waste and destruction from any and all sources.

Upon receipt of intimation to the effect that trespass has been, or is being, perpetrated upon public timber within his jurisdiction, it is expected of the agent that he will visit the locality and investigate the alleged trespass in person. Should the investigation result in developing trespass, a report thereon is required upon the proper form, presenting the facts of trespass in detail, in such a manner as to form a sound basis upon which to recommend proper action against the guilty parties. In every instance in which legal proceedings are ordered upon such reports, the agent is expected to render to the prosecuting United States attorney such required assistance as he is able, and thereafter advise this office respecting the outcome of the proceedings.

In cases in which settlement by payment of due measure of damages by the proper parties is deemed advisable by the Department the agent is required to issue proper notice to that effect, and subsequently keep this office duly advised respecting action taken thereunder.

In cases in which depredations are committed upon unperfected entries, separate reports upon the lands involved are submitted, and the agent is required to thereafter hold himself in readiness to render assistance in disposing of—under instructions from this office—the question of title to the lands raised by the facts presented in his report.

In cases demanding emergent action the agent is required to apply to the proper United States attorney to institute the legal proceedings requisite, and thereafter report as above indicated.

Agents are required to submit each week a report presenting a brief statement of official acts each day of the week.

Agents are required to submit semi-annually a report showing in every case investigated and reported, with all action taken therein, until finally closed.

Agents are required to keep an accurate account of all expenses incurred incident to the discharge of their official duties, over and above their actual daily expenses, and to submit a monthly itemized statement of same accompanied by proper vouchers.

CUSTODIANS OF MILITARY RESERVATIONS

have the care and custody of abandoned military reservations turned over to the Department. On many of them are buildings of value and other improvements left by the military authorities, and it is for the protection of these improvements that these custodians are appointed.

Statement showing in detail the methods of transacting business in the chief clerk's division of the General Land Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

An applicant for appointment as receiver of public moneys files his application for appointment with the honorable Secretary of the Interior; the appointment is made by the President, by and with the advice and consent of the United States Senate. The commission is drawn, signed by the President and Secretary of the Interior, and transmitted to this office. A bond is prepared with blank affidavits and instructions are forwarded to the appointee, who is directed to execute the instrument in conformity with the instructions. The bond and affidavit are sent to this office; if found correct, are forwarded to the honorable Secretary for approval; when approved they are returned to this office. The names of the sureties are noted with the amounts of surety. The proper notes are made on the bond book, the division of accounts notified, the bond is transmitted to the First Comptroller of the Treasury, and the commission sent to the appointee. He enters on duty, gives receipts in duplicate to the outgoing officer, who forwards one to this office and retains the other copy, and from the day following the date of said receipts the new officer enters on duty and his pay commences.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending and undisposed of, at the dates specified below, in the A division of the General Land Office, Department of the Interior:

Character of business.	Year.	Amount pending on Jan. 1.	During calendar year.	Disposed of during year.
Letters received and registered.....	1884	None.	131, 652	131, 652
Do.....	1885	None.	132, 482	132, 482
Do.....	1886	None.	139, 086	139, 086
Do.....	1887 (to Mar. 1).	None.	23, 660	23, 660

The work of this division is current, and is disposed of daily. There has never been any classified record kept of business received and transacted, and to make a statement as called for by this blank, and make the compilation, would require the examinations of many volumes of records containing the different items of business disposed of. It is practicable to give the number of letters received and registered each year, and also the number received for the years specified, in which are included the reports in duplicate from registers and receivers and applications for circulars, &c. Registering the former was continued up to August 1, 1885, when it was discontinued as to one report, and the registering of applications for circulars was discontinued August, 1885. These two items are estimated to number about 11,500 annually; therefore, to get a correct idea of the increase of business in this office by the number of letters registered, in comparing the number received in 1886 with former years, the sum of 11,500, which is included in former years but now discontinued, should be added to the number received in 1886 and a proportionate amount for 1887; by so doing an intelligent and approximate idea may be had of the increase.

A statement of the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employés in the A division of the General Land Office, Department of the Interior, is not given. No monthly classified account of the business performed has been kept.

The following statement shows the average number of employés in the A division of the General Land Office, Department of the Interior, during the periods specified:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	18	19	19	19	19	20	19	20	20	19	19	20
1885.....	20	18	19	19	19	19	20	20	20	20	20	20
1886.....	19	19	19	20	20	20	20	20	20	20	20	20
1887 (to March 1).....	19	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

No statement showing the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified, in the A division of the General Land Office, Department of the Interior, can be given. The clerks have been fully employed, but no account kept of the business transacted and disposed of by each employé, for the reason that it was never required, and in most cases wholly impracticable.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the A division of the General Land Office, Department of the Interior:

Year.	No. of employés.	Average No. of days present.	Average No. of hours employed daily.	Possible No. of days.
1884.....	19 $\frac{1}{4}$	263 $\frac{7}{11}$	7	307
1885.....	19 $\frac{1}{2}$	271 $\frac{23}{39}$	7	301 $\frac{1}{2}$
1886.....	19 $\frac{3}{4}$	273 $\frac{23}{73}$	7	305
1887 (to March 1).....	19	46 $\frac{9}{19}$	7	48

The official day is from 9 to 4 (7 hours), but there is allowed to the employes thirty minutes, from 12 m. to 12.30 p. m., for lunch, which is almost invariably availed of, which would bring the average hours of attendance to not exceeding $6\frac{1}{2}$ hours.

The following statement shows the maximum number of days devoted to business by the employe present for the greatest number of days, and also the minimum number of days devoted to business by the employe present for the least number of days in the A division of the General Land Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to Mar. 1).
Maximum No. of days	285	$300\frac{1}{2}$	305	48
Minimum No. of days	241	$260\frac{1}{2}$	261	37

1884.—Maximum time made by E. H. Minor, packer; minimum, A. M. Stagg, copyist.

1885.—Maximum time made by two law clerks, W. O. Conway and J. W. Le Barnes; minimum, A. M. Stagg, copyist.

1886.—Maximum time made by W. O. Conway, law clerk; minimum, J. E. Shepherd, class 1.

1887, to Mar. 1.—Maximum time made by ten clerks of the division; minimum, G. A. Wooley, class 1.

RECORDER'S (B) DIVISION.

Report of the recorder's (B) division, General Land Office, on the methods of business and work, as required by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the recorder's division of the General Land Office, Department of the Interior.

The business of this division comprises the receiving and answering letters relative to bounty land warrants, the public lands, and miscellaneous subjects.

The issuing of patents, the examination of same, in connection with the certificates of entry, and the recording of said patents. The examination of said records in connection with the patents and certificates of entry.

The examination of bounty land warrants that have been returned to this office by the district officers after their location upon the public lands.

The furnishing certified copies of the records and papers on file in this division when ordered, in accordance with the provisions of section 461, Revised Statutes, and circular of July 20, 1875.

Answering attorneys' cards.

Indexing the records.

Statement showing in detail the methods of transacting business in the recorder's division of the General Land Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

All letters received in this division from the general registering room, after which they are handed to the registering clerk of the division, who proceeds to register them in the division in alphabetical order, giving the date of the letter, date when it was received, name and address of the writer, office number of letter, and a brief of the contents of said letter. The letters are then distributed to the proper clerks for answering. When answered the date of the answer is indorsed on the letter and the letter is returned to the registering clerk, who makes the proper notes on the register. All letters received after proper action is taken upon them are filed in alphabetical order.

Cases for patenting are sent to this division by the board of review after having been duly examined and approved.

The cases are accompanied with a letter addressed by the Commissioner to recorder instructing him to prepare and issue patents for described entries. A letter ad-

dressed by the Commissioner to the President's secretary to sign land patents requesting the Secretary's signature, under the direction of the President of the United States, to described patents, also accompanies the cases from the board of review. The clerk in charge of such cases, in this division, after they are received, enters them on the proper charge books and distributes them to the patent writers, who prepare the patents from the certificates of entry.

After the patents are written they are sent to the board of examiners, who examine them in connection with the certificates of entry, and if found to be correct, the patents are sent to the President's secretary with a letter requesting her signature. After signing the patents she returns them to the recorder, who then proceeds to countersign them; after which they are sent to the sealing room, where the seal of the office is attached. The patent is now complete, and they are sent to the recording clerks, who record them in the proper volumes. After they are recorded the patents, the records, and the certificates of entry are sent to the second board of examiners for final examination. This board is composed of three examiners, one of whom holds the certificate of entry, which is read, one the record, and the third the patent. After a careful examination, if the patent and the record agree with the certificate of entry, the patents are delivered to the transmission clerk, who transmits them to the address of the register of the proper land office or to the address of the party who may have surrendered to this office the duplicate receipt.

Bounty land warrants after location upon public lands are returned to this office by the district officers where the locations were made. They are examined in this division, and if it is found that no caveat has been filed against the satisfaction of the warrant and that the assignments are correct, the locations are properly registered on the register in this division.

The warrants and location papers, with the abstracts of warrants located, are then sent to the public lands division for examination, as the correctness of the location. If any defect in the assignment of the warrant is found, or a conflict with a prior entry, the location is suspended and correspondence opened with the district officers of the district where the location was made, and when the cause of suspension has been removed the location is referred to the board of review for final action.

Attorneys' cards request information as to the name and residence of the party who may have made an entry of a certain tract of land, and if patented, the date of patent, the number of the volume and page where recorded. No account of the number of such cards received has been kept, but they amount to thousands each year.

Statement showing the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of, at the dates specified below in the recorder's division of the General Land Office, Department of the Interior.

Character of business.	During 1883-'84.	Disposed of, 1883-'84.	During 1884-'85.	Disposed of, 1884-'85.	During 1885-'86.	Disposed of, 1885-'86.	During part of fiscal year July 1, 1886, to Mar. 1, 1887.	Transacted and disposed of during part of fiscal year July 1, 1886, to Mar. 1, 1887.
Letters received	16,605		15,454		15,748		8,993	
Letters written		14,532		13,468		12,486		6,636
Pages of record covered by letters written		8,799		7,995		7,279		2,800
Copies furnished from patent records		4,790		4,005		4,903		2,730
Number of warrants examined and assignments approved ..		163		137		118		29
Number of pieces of Virginia military scrip issued		23		61				
Number of agricultural patents issued		51,337		71,131		19,885		12,967
Number of records of same		51,337		71,131		19,885		12,967
Number of patents transmitted		42,629		73,172		23,957		12,524
Number of military bounty land warrants examined after location		245		282		270		87
Number of circulars sent out		946		818		672		307

The discrepancy between the number of letters received and the number of letters answered is accounted for by the fact that some of the letters received are of such a character that they do not require an answer. No account of the work pending on the first of the year is kept in this division, nor at the close of the year.

No account has been kept for any particular period of the character and amount of business transacted or labor performed by individual employes, because no record of this matter has been required, and in most cases would be wholly impracticable.

The following statement shows the average number of employes in the recorder's division of the General Land Office, Department of the Interior, during the periods specified:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	36	37	36	42	42	42	45	45	46	51	53	53
1885.....	51	50	51	52	52	52	47	41	42	40	43	45
1886.....	47	47	35	35	33	32	32	29	29	29	30	30
1887 (to March 1)	30	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

No statement showing the maximum and minimum amount of business transacted and disposed of by the employe doing the most and the employe doing the least during the periods specified, in the recorder's division of the General Land Office, Department of the Interior, can be given. No record of this kind has been kept, as it has never been required under office or departmental regulations.

The clerks in this division are fully employed at all times in transacting the business pertaining to the division.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employes in the recorder's division of the General Land Office, Department of the Interior:

Year.	Number of employes.	Average number of days present.	Average number of hours employed daily.	Number by proxy.	Possible time, in days.	Average time lost by each employe, in days.
1884.....	44	258	7	None	307	49
1885.....	47	259	7	None	301½	42½
1886.....	34	267	7	None	305	38
1887 (to March 1)	30	44	7	None	48	4

The official day is from 9 to 4 (7 hours), 30 minutes, from 12 to 12.30, is allowed for lunch, which is very generally availed of by the employes. This would bring the average hours of attendance to not exceeding 6½ hours a day.

The following statement shows the maximum number of days devoted to business by the employe present for the greatest number of days, and also the minimum number of days devoted to business by the employe present for the least number of days in the recorder's division of the General Land Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to Mar. 1).
Maximum number of days	285	288½	D. h. m. 304 3 30	D. h. m. 47 3 30
Minimum number of days	243	213½	153 0 0	39 5 45

The greatest time lost in 1884 was by a lady clerk, as follows: Annual leave, 29; sick, 35; total, 64 days; possible time, 307 days; number of days present, 243.

The greatest time lost in 1885 was by a lady clerk, as follows: Annual leave, 35; sick, 53; total, 88 days; possible time, 301½ days; number of days present, 213½.

The greatest time lost in 1886 was by a lady clerk, as follows: Annual leave, 30; sick, 30, and 92 days without pay; total, 152 days; possible time, 305 days; number of days present, 153.

PUBLIC LANDS.

Report of the public lands division, General Land Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in public lands division of the General Land Office, Department of the Interior.

In this division, as soon as the public surveys are made, tract-books (containing about 500 pages each, or half that number of folios) are opened, the record of three sections of land being kept on a folio, and therein are noted in pencil the legal subdivisions established by the survey. These books become permanent records, and all entries, locations, selections, reservations, grants, &c., are entered therein in ink. Of these books about 3,500 have already been opened and are in constant use.

It is the duty of this division to examine the greater portion of the entries, locations, &c., made with regard to the regularity of the papers returned and the sufficiency of the proof submitted where proof is required; to see that errors are corrected, preparing the necessary correspondence for that purpose, and to approve claims of parties found to be entitled, or hold those of parties found not entitled for cancellation, as the case may be; and heretofore it was the duty of the division to examine and pass upon a multitude of contested cases, submit appeals therein to the appellate authority, communicate results to the proper local officers and to the parties interested, and give the necessary instructions.

In addition there is a great deal of miscellaneous business, such as the work necessary for disposing of abandoned reservations under special acts of Congress, for giving effect to such acts in favor of private parties having rights to be adjusted with regard to public lands, and in the preparation of lists and proclamations for public sales, or for restoring to market lands withdrawn for various causes.

With the exception of the adjustment of swamp grants, this division has now in charge the consideration of the several grants of land to States and Territories, as well as the reservations in the Territories for school purposes, this branch of the work having been transferred from the pre-emption division September 7, 1885.

It devolves on this division to examine and pass upon the following classes of entries:

Entries made at public sales.

Private entries (entries of offered lands with cash, military warrants, agricultural college scrip, and private land scrip).

Original and final homestead entries.

Commutations of homestead entries.

Original and final timber-culture entries.

Original and final desert-land entries.

Entries under the timber and stone land act.

Entries of saline lands.

Locations with Valentine, Porterfield, and the different kinds of Indian scrip.

State and Territorial selections

Entries of lands in California enhanced to the double minimum price of \$2.50 per acre, selected for agricultural colleges.

Entries of lands in California under the confirmatory act of March 1, 1877.

Statement showing in detail the methods of transacting business in the public lands division of the General Land Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

A HOMESTEAD CASE.

Statement showing the manner of proceeding in disposing of homestead cases in the General Land Office.

Ralph C. Clare made homestead entry for SW. $\frac{1}{4}$ of S. 20, T. 20 N., R. 6 W., at the Niobrara, Nebr., land district, August 27, 1878, and it was numbered 3817, that being the number following the last homestead entry made.

Within three days from the close of each month the registers and receivers are required to make out and transmit to the General Land Office a statement of the business of their respective offices for the preceding month. These reports are in the form of abstracts of pre-emption declarations and of soldiers' declarations filed; abstracts of lands sold; abstracts of homesteads entered; abstracts of timber-culture entries allowed; abstracts of military bounty land warrants and of agricultural college scrip located, accompanied by the certificates of location thereof; also of all other forms of entry or location requiring separate returns. Names of parties are required to be clearly and legibly written in these papers to correspond with the signature to every application. The abstracts are certified by the register and receiver as correct and as in conformity with the papers in the entries or locations embraced therein, and with their records, which papers, abstracts, and records must agree with each other.

The papers in the case of Claro, consisting of his application for the land described, to which is attached a certificate by the register showing that the land is of the class which the applicant is legally entitled to enter under section 2289, Revised Statutes of the United States, and that there is no prior valid adverse right to the same, and affidavit required by law, also receiver's receipt for fee and commissions due at date of entry (all these papers are made out on forms prescribed) were received in this office September 13, 1878, with report for the month of August, 1878, from the local officers at Niobrara by mail.

A duplicate of the receipt was given to the entryman at the time he made his entry to show that he had paid the fee and commissions due at date of entry, what land he had entered, under what law, and the number of his entry.

The letter of transmittal was given its proper number in the registering room and the date it was received in this office (it being briefed), and was then charged to and sent with the Niobrara returns for August, 1878, to the division of accounts (M). Division M, after having acted on the papers so far as said division was concerned, sent them by a messenger on September 20, 1878, to the chief of the division of public lands (C), retaining the letter of transmittal and the receiver's accounts. The chief of division C then sent them by his messenger to the proper section in his division for action.

Clare's papers were taken up in the regular order of business by a clerk in the Nebraska section of division C, and were examined by him to see that the name, number, and description agreed in all the papers, and that they were properly signed and certified to; then said clerk posted the entry of Clare on what is called a tract-book.

A tract-book is a book containing certain sections, townships, and ranges in a given district, and is ruled and headed to show what part of the section, township, and range is entered, and under what law, the area, amount of fee paid, the name of the entryman, the date of the entry, and the number of the same, also a space to show what disposition is made of any particular entry.

Clare's papers, after having been entered on the tract-book in its proper place by said clerk, were placed in the Niobrara homestead files (after the volume and page were marked on the outside of the same). The papers in said files are kept in numerical order.

On December 22, 1883, which was a little more than five years, and within seven years from date of entry, which was within the time required by law, Clare made final proof on his homestead entry, No. 3817, and the same being satisfactory to the local land officers at Niobrara, the receiver issued final receipt, No. 1979, December 22, 1883, to Ralph C. Clare, showing that he paid the sum of \$4, the balance of payment required by law, for his entry of SW. $\frac{1}{4}$ of section 20, township 30, of range 6 W., containing 160 acres, under section 2291 of the Revised Statutes of the United States, and a duplicate of the same was given to Clare. The register then issued final certificate No. 1979, same number as receiver's final receipt, in which he certifies that, pursuant to the provisions of Section 2291, Revised Statutes of the United States, Ralph C. Clare has made payment in full for SW. $\frac{1}{4}$ section No. 20, in township No. 30, of range No. 6 W., of the sixth principal meridian, Nebraska, containing 160 acres, and that on presentation of said certificate to the Commissioner of the General Land Office the said Ralph C. Clare shall be entitled to a patent for the tract of land above described. These final papers were forwarded to this office by the local officers at Niobrara, in due time, in the same manner that the original papers were forwarded, and they went through the same channel until a clerk in division C took them up for examination; then said clerk withdrew from the Niobrara homestead files the original papers and referred to the volume in which they were recorded, and opposite the same on the tract-book wrote in ink "Final certificate No. 1979, December 22, 1883." The original papers were then placed with the final proof and examined by the clerk to see that the law had been complied with in every respect, and that all the papers were in due form and that there was no conflicting claim.

It was discovered by the clerk examining the proof that said final certificate No. 1979 conflicted with two pre-emption filings for the same land made in 1873 and 1874 respectively. The final certificate was then placed on a docket kept for all Niobrara homestead final certificates. Said docket gives the number of the original entry and final certificate, and shows what disposition is made of the same.

This case was marked suspended on the docket and the cause of suspension was marked on the certificate by the clerk who examined the same; the clerk then wrote a letter to the local officers at Niobrara, stating that the case was suspended, giving the cause, and instructed him to notify the pre-emptors that they would be allowed sixty days within which to show cause why their filings should not be canceled and the homestead entry completed, and that their failure to respond would be deemed a waiver of their alleged pre-emption rights. Said local officers were also instructed to cancel these filings on their records if the parties failed to respond within the required time. This letter was written in division C, dated February 8, 1884, by the clerk who examined the case, and was signed by the Acting Commissioner. When it was mailed the final certificate was filed by said clerk in the Niobrara final homestead certificate files. These suspended cases are filed in numerical order, where they remain until the cause of suspension is removed, or withdrawn for reference or otherwise.

On March 5, 1886, the case in question was withdrawn from the suspended files by a clerk in the Nebraska section of division C, as the cause of suspension had been removed, and on that day was approved for patenting by said clerk. The note on the final homestead docket "suspended" was erased, and the case was charged by said clerk, March 8, 1886, to division B. A slip was then attached to the case giving the date it was sent to division B, and the name of the clerk sending the same, the name of the local office, and the character of the case. The case was carried to division B, which is the recorder's division, by a messenger, where it remained for a short time awaiting for the "board of review" to make file room for such cases. It was then sent by a messenger to the "board of review," which is now called division O, for a re-examination of the case as to the requirements of law.

If the case in question was a current one, and was regular in all respects, it would be sent direct to division O, from division C, with a note on the same, over the clerk's signature, recommending the case for patenting, accompanied by a slip showing the character and number of the entry and name of the office.

This case was referred to division O, from division B, and noted upon a docket, then placed in the proper files, to be taken up when reached in its regular order. When reached it was carefully examined by a clerk, who made a brief of the case, said brief showing value of improvements, date of entry, date of residence, date of proof, members of claimant's family, character of residence maintained by claimant and family, number of acres broken, and number of seasons crops were raised. Upon said examination it was found that the law and the requirements of this office had been complied with. This case and others similar in character were placed upon an abstract (said abstract showing all the points in said brief) and submitted to the chief of division O, who, upon examination, recommended the same for approval for patent. The abstract was then presented to the law clerks, chief clerk, and assistant commissioner, who, upon examination, indorsed their approval on the same, after which it was presented to the Commissioner for his approval. The abstract being approved by the Commissioner, it was returned to division O. The cases were charged on the division O docket as having been approved for patent, and sent to Division B, February 4, 1887. On said date the cases and abstract were sent to division B.

This certificate (No. 1997) was received in Division B February 4, 1887, and was entered on division B, abstract for patenting February 16, 1887. It was then given to a clerk in division B to write the patent. The patent was written and handed over to a board consisting of two clerks, who examined it with the other papers, found it correct, and then it was placed before the President's private secretary to sign land patents, who affixed her signature thereto. It was then placed before the recorder, who also affixed his signature under date of February 23, 1887. A messenger then placed the official seal upon the same, and carried the patent to a clerk who recorded it. It was then, in connection with the other papers, examined by a board consisting of three clerks, who, upon finding it to be correct, turned it over to the transmission clerk, and on February 28, 1887, it was transmitted (the patent) to the local officers at Niobrara, who will deliver it to the proper party on surrender of the duplicate receipt or an affidavit as to its loss.

The register is required to acknowledge receipt of the patent, and to forward duplicate final receipt, or such affidavit, which will be placed on file.

The proof and original papers in this case are filed with Niobrara, Neb., final certificate No. 1979, in division B. The certificates are filed in numerical order.

Sample of contest work performed in the public lands division of the General Land Office.

WASHINGTON, D. C., April 8, 1887.

Contest case of William Crosby vs. C. C. Dall, involving lot 4, SE. $\frac{1}{4}$ SW. $\frac{1}{4}$ and W. $\frac{1}{2}$ SE. $\frac{1}{4}$, sec. 30, tp. 4 S., R. 2 E., M. D. M., San Francisco, Cal., district. Said tracts having been entered by Dall under the homestead laws, as per homestead entry No. 4668, dated November 9, 1881, Crosby contests the entry on the ground that Dall has failed to meet the requirements of the homestead law in the matter of residence and cultivation.

September 29, 1884, letter received at the General Land Office from the register of the United States land office, San Francisco, Cal., dated September 19, 1884, with the testimony in the case, the joint decision of the register and receiver sustaining the homestead entry of Dall, and an appeal from their decision filed by Crosby.

Letter registered, numbered, and referred to division of public lands. Letter registered in said decision and referred by chief of division to a fourth-class clerk in charge of California desk.

Entry papers of Dall withdrawn from homestead-entry files, and filed with the record of contest.

Case noted on contest docket, numbered, labeled, and placed on contest files.

Record of contest taken up in its regular order by clerk in charge of California desk. Decision written out by clerk sustaining the entry of Dall and submitted to chief of division. Decision examined and approved by chief of division; examined and approved by law clerk; examined, approved, and signed by acting commissioner, and returned to the clerk who prepared it.

March 24, 1885, decision dated, press copied, recorded, and mailed to the register and receiver at San Francisco, who were instructed to advise the parties in interest of the decision, and allow them sixty days to appeal therefrom to the honorable Secretary of the Interior.

August 28, 1885, register's letter received, dated August 18, 1885, transmitting appeal by Crosby from the decision of the General Land Office, with the report that said appeal was filed in his office May 28, 1885, that time had been allowed for arguments, but none had been filed in behalf of either party.

Receipt of appeal noted on contest docket, and appeal filed with record of contest.

September 16, 1885, copy of acting commissioner's decision, dated March 24, 1885, transmitted with the appeal and other papers in the case to the honorable Secretary of the Interior for his action, the date of transmittal noted on the docket, and the register and receiver advised.

December 6, 1886. The papers in the case received from the honorable Secretary, with his decision, dated November 30, 1886, reversing the decision of the General Land Office, and directing that Dall's entry be cancelled.

December 15, 1886. Homestead entry of Dall cancelled, in accordance with the instructions of the honorable Secretary, and a letter written to the register and receiver inclosing a copy of the decision of the Department, instructing them to note the cancellation of the entry upon their records, and to advise the parties in interest of the contents of the honorable Secretary's decision.

Cancellation of Dall's entry noted upon contest docket, tract book, and docket of homestead entries. Entry papers of Dall returned to homestead entry files, and the record of contest placed in the special files.

Case closed.

December 30, 1886. John Mullan, attorney, Washington, D. C., enters his appearance for Martha Dall, widow of C. C. Dall, deceased.

Appearance noted on contest docket.

December 30, 1886. John Mullan files (for transmittal to the honorable Secretary of the Interior) a motion for review of the honorable Secretary's decision, accompanied by his brief, the petition of Mrs. Dall, and his affidavit setting forth that he had mailed a copy of the motion to William Crosby by registered letter.

January 8, 1887. Motion for review transmitted to the honorable Secretary of the Interior, and the action noted upon contest docket.

February 19, 1887. Letter received from the honorable Acting Secretary of the Interior, dated February 15, 1887, denying the motion for review, and returning the papers transmitted with office letter of January 8, 1887; also transmitting for the files of the General Land Office the answer of William Crosby to the motion for review, received at the honorable Secretary's office January 25, 1887.

February 26, 1887. Letters written to the register and receiver at San Francisco, Cal., and to John Mullan, advising them of the decision of the honorable Acting Secretary of the Interior, denying motion for review. Proper annotations made upon contest docket, and letters placed in files.

Sample of the work performed in the public lands division of the General Land Office in establishing new land districts.

- August 7, 1887. Letter from chief clerk, Department of the Interior, dated August 7, 1886, inclosing act of Congress entitled "An act to establish a land office at Lamar, Colo.," received in the registering room, briefed by clerk, and then given current number (84431). It was then entered on the index book, and turned over to another clerk, who entered it on the record of Departmental letters received; the letter was then carried by messenger to Division A (chief clerk's), where it was entered on the division record by a copyist and referred to a corresponding clerk for action.
- August 10 1886. Notice (No. 905) in accordance with act of Congress approved August 4, 1886, of the establishment of the Bent land district, written by a clerk in Division A, signed by the Commissioner, and then taken by messenger to the printing office, where 500 copies were printed for use of the General Land Office.
- August 12, 1886. Inclosures in letter (84431) referred to above handed to chief public lands division C, for information and necessary action.
- August 17, 1886. Diagram of the Bent land district made by clerk in the division of drafting, Division L, and approved and initialed by the chief of that division, and then handed to clerk in charge of Colorado desk, Division C.
- August 18, 1886. Letter transmitting said diagram to the local officers at Pueblo, Colo., for information about their tract books, written by clerk in Division C, approved and initialed by the assistant chief of that division; then taken by corresponding clerk to the law examiners, one of whom read, approved, and initialed the letter, which was then submitted to the assistant commissioner and signed by him. The letter was copied in Colorado press-copybook 21, page 73, and turned over to a copyist, who copied the letter in the Colorado letter record, vol. — page —, after which it was returned by messenger to the writer, who made the proper notes and mailed the letter.
- September 21, 1886. Letter to the local officers at Pueblo, Colo., directing them to comply with instructions contained in former letter, written by corresponding clerk in Division C, read, approved, and initialed by chief and assistant chief in that division, then submitted to the law examiners, one of whom read, approved, and initialed the letter, which was then given to a messenger, who stamped the Commissioner's name to the same and returned it to the writer, who copied the same in Colorado press-copy book, vol. 21, page 217, and sent the letter by messenger to the copyist; then it was copied in the Colorado letter record, and again returned, after being compared, to the writer, who made the proper notes and mailed the letter.
- November 9, 1886. Telegram directing the Pueblo, Colo., officers to forward immediately diagram referred to, written by clerk in Division C, approved and initialed by chief of that division, then submitted to the law critics or examiners, one of whom approved and initialed the same, and submitted to the honorable Commissioner. That officer, having signed the telegram, it was press copied in the Division A telegram book and returned by messenger to the writer, who made a copy of the same for reference in Division C, and mailed the original.
- November 13, 1886. Letter from local officers at Pueblo, Colo., returning diagram with explanation, received in the registering room, and given current number (118478). It was then entered on the index book by a clerk in said room, and also entered on the register of letters received, after which it was taken by messenger to the proper division, C.
- November 14, 1886. The letter above referred to (118478) was entered by the registering clerk of division C, on the register of letters received, vol. 63, page — and then carried by messenger to the clerk in charge of the Colorado desk, for his action.
- November 14 to 19, 1886. Three tract books containing 48 townships prepared by two clerks in division C, for the use of the Lamar land office, and examined by the clerks named with the assistance of another clerk.
- November 17, 1886. Letter directing the local officers at Pueblo, Colo., as to the action to be taken by them in regard to their plats and tract books, and directing that they close business at their office December 31, 1886, as to the land now in the Bent district, written by clerk of Division C, submitted by him to the assistant chief of said division, who, after having read, approved, and initialed the same, submitted it by messenger to the law examiners.
- November 18, 1886. Letter written 17th instant, having been approved and initialed by one of the law examiners, was given to a messenger, who stamped the Assistant Commissioner's name to the letter and returned it to Division C, where, after being dated and press-copied, it was carried by messenger to the copyist, who copied the same in the Colorado letter record, and returned the letter, after comparing it, by messenger to the writer. He in turn made the proper notes and mailed the letter.
- November 20, 1886. Letter giving instructions to the Lamar officers as to the manner of posting in the tract books, written by clerk of Division C, and, after being approved and initialed by the chief of that division, was submitted to the law examiners, one of whom approved and initialed the letter, which was then signed by the Acting Commissioner and returned to the writer. The letter was then dated and press-copied and carried by messenger to the copyist, who copied the same in the Colorado record of letters received, and, after comparing it, gave it to the messenger, who returned it to the writer; it was then mailed, after the proper notes had been made.
- December 13, 1886. Letter transmitting labels for the tract books, written by clerk in Division C, approved and initialed by the chief and assistant chief of said division and submitted to the law examiners, one of whom approved and initialed the same. It was then signed by the Acting Commissioner and returned to writer, who press-copied the same and sent it by messenger to the copyist. It was then recorded in the Colorado letter record and returned by messenger to the writer, who mailed the same after making the proper notes.
- December 28, 1886. Letter from acting chief clerk, Interior Department, dated December 27, 1886, transmitting commissions of register and receiver of Lamar office, received in registering room, briefed by clerk, and given current number (133572); entered by clerk on the index book and register of departmental letters received. It was then taken by messenger to the proper division (chief clerk's) where it was entered on the division record by copyist and referred to a corresponding clerk for action. Two letters, one to the register and the other to the receiver, notifying them of their appointment and directing them to give sufficient bonds, written by clerk in Division A (chief clerk's), approved and initialed by the receiving clerk of said division, and signed by Commissioner. The letters were then press-copied by messenger and returned to the writer, who, after making the proper notes, mailed the letters.
- January 3, 1887. Office at Lamar opened for business.

Statement showing various steps taken in connection with the restoration to the public domain of an abandoned military reservation, and a portion of the miscellaneous correspondence growing out of the same.

Fort Dodge Military Reservation in Kansas.

This reservation, located in Townships 25, 26, and 27 south of the base line and Ranges 23, 24, and 25 west of the sixth principal meridian, containing nearly 68 square miles, or about 43,461 acres, was established by Executive order of June 22, 1868, and existed intact as a military reservation until December 15, 1880, when it was very materially reduced by an act of Congress of that date (21 Stats, 311), it having been found that a large portion of the reservation was no longer needed for military purposes.

The said act authorized the Secretary of the Interior to have that portion of the reservation lying north of the land owned and occupied by the Atchison, Topeka and Santa Fé Railroad Company, surveyed, sectionized, and subdivided as other public lands, and offered to actual settlers under the provisions of the homestead laws, reserving to the said railroad company the right to purchase such portion thereof as it might need for its use, adjoining the land then owned by the company, not exceeding 160 acres, by paying therefor the price at which the same might be appraised by the Secretary of the Interior.

Subsequently this office employed one F. Singer, under contract dated April 9, 1881, to survey these lands, who commenced the work June 22, and completed the same July 11, 1881, and made due return thereof, transmitting his field notes of survey, &c. The surveys, after being examined and platted, were approved September 17, 1881.

September 24, 1881. Letter E, addressed to register and receiver, Larned, Kans., transmitting plats referred to above, and advising them that said lands were to be disposed of to homestead settlers, as provided by the act of December 15, 1880.

Letter of February 1, 1881, numbered 7744, received from Hon. P. B. Plumb, inclosing a letter dated January 21, 1881, addressed to him by W. B. Strong, vice-president and general manager of Atchison, Topeka and Santa Fé Railroad Company, with maps and a description of the lands desired by said company adjoining the Dodge City and Ridgeway Stations in Fort Dodge Military Reservation; also a copy of act of Congress of December 15, 1880, under which the company claimed the right to purchase. Senator Plumb stated in his letter of transmittal that as the company wished to proceed at once to erect improvements on the grounds, they asked permission to purchase, and therefore it was desirable that the lands should be surveyed and appraised at an early date.

February 3, 1881. Letter E, addressed to Senator Plumb, in reply to above, returning the papers (copies thereof being retained in this office) and expressing the opinion that the selections must be made of lands wholly on the north side of the railroad, the selections as made by the company embracing lands on both sides of the road.

Upon application of Messrs. Britton & Gray, attorneys for said company, the matter was reconsidered, and it was decided that selections might be made of lands on either side of the road, but adjacent to it.

February 11, 1881, Senator Plumb and Messrs. Britton and Gray were advised of above decision by letters "E," and their attention was also called to the fact that a part of one of the selections indicated by the company fell within the limits of a school section (36), and the company was afforded opportunity to make another selection in lieu thereof.

February 28, 1881, Thomas J. Seely, engineer and surveyor, also superintendent of construction of Atchison, Topeka and Santa Fé Railroad Company, offered to undertake the survey of the lands selected by the company, the expenses thereof to be borne by the company.

March 9, 1881, Mr. Seely was informed by letter "E" of the acceptance of his offer, and that proper instructions for the survey of the selected lands would be given him as soon as the company should indicate their selection of a tract in lieu of the one falling in section 36, Vice President Strong having been advised to that effect on the previous day, March 8, 1881, by a telegram.

Subsequently Messrs. Britton and Gray urged the immediate issuance of instructions, and accordingly, March 19, 1881, by letter "E," Mr. Seely was directed to proceed to make such surveys of lands as had been or might be selected by the company, with the proviso that no lands should be included within the limits of section 36.

In pursuance of foregoing instructions Mr. Seely surveyed the lands as directed, April 19, 1881, and made due return thereof by letter of April 29, 1881, numbered 30913, transmitting his field notes of survey with maps, &c. After being examined and platted the surveys were approved June 22, 1881.

August 4, 1881, letter "E" addressed to the honorable Secretary of the Interior, advising him of the above survey and suggesting that the appraisal of the tracts as selected and surveyed be ordered at an early day.

Letter dated August 5, 1881, numbered 51287, received from honorable Secretary of the Interior in reply to above letter, designating the district officers at Larned to appraise the lands under instructions from this office, and directing us to report their action to the Department for approval, with such recommendations as might seem proper.

August 5, 1881, letter "E" addressed to the district officers at Larned, transmitting plats, field notes, &c., and advising said officers of their designation by the Secretary of the Interior to appraise the lands selected and surveyed for the use of the Atchison, Topeka and Santa Fé Railroad Company.

Letter dated October 24, 1881, numbered 70130, received from register and receiver at Larned, forwarding a report of their appraisement and returning the plats and field notes of survey.

November 5, 1881, letter "E" written to district officers at Larned, retransmitting above plats to be retained at their office, and official copies thereof were forwarded to State Register at Topeka, Kans., by letter "E" of same date.

November 14, 1881, letter "E" addressed to honorable Secretary of the Interior, in reply to Department letter of August 5, 1881, inclosing report of appraisal by district officers, with a copy of our letter of instructions to them of August 5, 1881.

Letter of December 12, 1881, numbered 84070, received from honorable Secretary of Interior, returning papers sent in above letter and requesting this office to make a distinct recommendation on the subject.

December 28, 1881, letter "E" to honorable Secretary of Interior, in reply to above, recommending that the report of appraisal by the district officers at Larned be accepted, giving reasons therefor.

Letter of December 29, 1881, numbered 84495, received from honorable Secretary of the Interior, returning approved the appraisal of said lands.

- January 13, 1882, letter "C" addressed to district officers at Larned, directing them to notify the proper officers of the railroad company of their right to purchase the lands selected and surveyed for depot and station purposes.
- Letter of February 21, 1882, numbered 15292, received from honorable Commissioner of Indian Affairs, asking what entries and filings had been allowed under the act of December 15, 1880, on that portion of the Fort Dodge military reservation falling within the limits of the Osage Indian trust and diminished reserve lands; also what action had been taken by the Atchison, Topeka and Santa Fé Railroad Company and by this office with reference to land allowed to be purchased by said company under the act referred to.
- March 4, 1882, letter "C" addressed to district officers at Larned, calling on them for a report showing what entries and filings had been allowed, as above requested.
- Letter dated March 25, 1882, numbered 25958, received from register at Larned in reply to above, reporting that one homestead entry by Daniel M Frost had been allowed, and that the Atchison, Topeka and Santa Fé Railroad Company had purchased and paid for the land selected for depot purposes near Dodge City, per cash entry 765, made February 18, 1882.
- April 1, 1882, letter "C" written to honorable Commissioner of Indian Affairs, inclosing copy of above report.
- April 3, 1882, letter "C" addressed to honorable Commissioner of Indian Affairs, containing additional information to that given in above letter.

Act of July 5, 1884 (23 Stats., 103), for the disposal of abandoned and useless military reservations, provided that such reservations shall be placed under control of the Secretary of the Interior to be surveyed, appraised, and sold at public sale, after due advertisement, for cash, to the highest bidder at not less than the appraised value, nor less than \$1.25 per acre.

Under Presidential order of January 12, 1885, the residue of Fort Dodge military reservation, containing about 12,000 acres, was turned over to this Department for appraisal and sale, as provided in act above referred to.

Letter dated January 14, 1885, numbered 5573, received from honorable Secretary of War, transmitting Executive order of January 12, 1885, above referred to.

Letter dated September 22, 1885, numbered 96797, received from Hon. F. M. Cockrell, calling attention to the fact that pursuant to the act of July 5, 1884, the reservation had been placed under control of the Interior Department, and asking if it could be sold, also if one Wright was still the custodian.

September 27, 1885, letter "C" written to Hon. F. M. Cockrell in reply to above, advising him that the lands had not yet been appraised and therefore were not subject to entry or disposal; also that Mr. Wright was still the custodian of the reservation.

Letter of June 26, 1886, numbered 69883, received from Hon. John J. Ingalls, asking if settlements could be lawfully made upon lands within the present limits of Fort Dodge military reservation.

It was found, upon examination, that only a small portion (about 1,200 acres) of the residue of the reservation turned over to the Department by Presidential order of January 12, 1885, was public land, the remainder being Osage Indian trust lands, provisions for the disposition of which, by sale to actual settlers for cash only at \$1.25 per acre, were made by the second and fourth articles of the treaty of September 29, 1865, with the Great and Little Osage Indians (14 Stats., 688), which provisions were re-enacted by Congress May 28, 1880 (21 Stats., 143).

July 9, 1886, two letters "C" were addressed to the district officers at Garden City, Kans. (a new land district having been created which embraced the lands within the Fort Dodge military reservation), directing them to allow entries of the Osage trust lands within the said military reservation, as provided by the act of May 28, 1880, above referred to, with the exception, however, of tracts upon which buildings erected by the Government for military purposes were located, which they were instructed to ascertain and report to this office, so that proper steps could be taken for the appraisal and sale of such buildings before disposing of the tracts of land which they occupied.

July 9, 1886, letter "C," to Hon. Jno. J. Ingalls, in reply to his of June 26, 1886, inclosing copies of the two letters to the district officers at Garden City of same date above referred to.

Letter of July 22, 1886, 80789, received from L. E. McGarry, of Dodge City, Kans., stating that the 1,200 acres of public land within the reservation were occupied by nine settlers, who for some time had been improving the same for homes under the impression that they would be opened for settlement as other portions of the reservation, and asking if there was not some way by which said settlers could be allowed to enter the land under one of the public land laws.

Letter of August 17, 1886, 88013, received from district officers at Garden City, in reply to letter "C" of July 9, 1886, containing report called for.

Letter dated August 18, 1886, 89952, received from Hon. S. R. Peters, inclosing one addressed to him by D. M. Frost, of Dodge City, Kans., dated July 31, 1886, relative to the appraisal and sale of that portion of Fort Dodge military reservation outside of the Osage trust lands, and suggesting that the matter be given the greatest publicity possible.

Aug. 27, 1886, letter C, to district officers at Garden City, directing them to ascertain and report whether any homestead settlers were occupying the public lands in the reservation whose settlements existed prior to January 1, 1884, and, if so, to give the names of the parties with a description of the tracts so occupied.

August 27, 1886, letter C, to Hon. S. R. Peters, in reply to his of August 18, 1886, stating that due notice would be given of the sale, which would be by public outcry, affording ample opportunity for competition; also advising him of the instructions to the register and receiver at Garden City by letter of even date.

September 2, 1886, letter C, to L. E. McGarry, in reply to his of July 22, 1886, informing him of the action of this office by letter C, of August 27, 1886, to the district officers at Garden City.

Letter of August 18, 1886, 90085, received from Benjamin F. Miler, of Dodge City, Kans., relative to the grant of land to the Atchison, Topeka and Santa Fé Railroad Company, under the act of December 15, 1880, urging that a suit be brought against the said company to vacate the patent issued to them, holding that the cash entry made by the company February 18, 1882, was void, because a portion of the land embraced in the purchase was south of the right of way of said road, and therefore not subject to entry under said act; and further, that the entire tract was within the limits of the Osage Indian trust lands, which by treaty stipulations and laws passed in pursuance thereof, prior to the passage of said act of December 15, 1880, were to be sold to actual settlers for the benefit of the Osage Indians.

- Sept. 7, 1886, letter "C," to Benj. F. Miller, in reply to above, declining to recommend such suit.
- Letter dated Sept. 3, 1886, 96491, received from Geo. W. Stitt, of Dodge City, Kans., stating that he is a settler on that portion of the Fort Dodge military reservation outside of the Osage Indian trust lands, and asking for information relative to his rights in the premises.
- Sept. 20, 1886, letter "C," to Geo. W. Stitt, of Dodge City, Kans., in reply to above, informing him of the action of this office in the matter by letter "C" of Aug. 27, 1886, to the district officers at Garden City.
- Letter dated Oct. 20, 1886, 11706, received from register and receiver Garden City, in reply to ours of Aug. 27, 1886, reporting that no homestead settlers were found who were occupying public lands in the reservation on the 1st of January, 1884.
- Letter of January 20, 1887, 1881, received from Hon. H. L. Muldrow, Acting Secretary of the Interior, relative to the appraisal, survey, and sale of abandoned military reservations as provided by act of July 5, 1884, containing a list of such reservations turned over to this Department, directing this office to have the same surveyed and platted, and calling for a separate report in case of each reservation.
- February 14, 1887, letter "C," to honorable Secretary of the Interior, reporting, in case of Fort Dodge military reservation, that the public lands in the reservation were the only lands subject to appraisal and sale under the act of July 5, 1884, and that as the same had been surveyed and platted, no objection was known to exist to the early appointment of appraisers, and that upon our being advised of their appointment they would be furnished with copies of the plats of survey and proper instructions for their information and guidance; also that they would be directed to ascertain and report the value of the buildings erected by the Government for military purposes on the Osage Indian lands, provided such course met the approval of the Department.
- Letter dated March 21, 1887, 32816, received from H. J. Hochderffer, of Dodge City, Kans., relative to the triangular piece of land in Fort Dodge military reservation south of Atchison, Topeka and Santa Fé Railroad Company, and north of the Osage Indian land, containing about 1,200 acres, stating that he has settled upon same and thinks it unjust to the poor man to have the land sold, as the land on the other side of road was opened to homestead entry, and asking for definite information on the subject: if to be sold, why, how, when, and on what terms.
- April 2, 1887, letter "C," to H. J. Hochderffer, in reply to above, advising him of the requirements of the act of July 5, 1884, also that the lands had not yet been appraised, but that the matter was under consideration by the Department, and that proper instructions for the appraisal and sale would be given in due course of time.
- Letter dated Feb. 25, 1887—23456, received from Geo. W. Barlow, of Dodge City, Kansas, stating that he is a settler on a tract of Osage Indian land within the Fort Dodge Military Reservation, which has been patented to the Atchison, Topeka and Santa Fé R. R. Co., and asking if it will be possible for him to have said patent set aside, and, if so, how shall he proceed.
- April 20, 1887, letter "C" to Geo. W. Barlow, in reply to above, inclosing copy of letter "C" of Sept. 7, 1886, addressed to Benj. F. Miller, of Dodge City, Kansas, on same subject.
- This office has not been officially advised of any action taken by the Department relative to the appointment of appraisers as suggested in our letter "C" of Feby. 14, 1887, and there the matter rests at the present time.
- Numerous other letters have been received and written, notably in case of the homestead entry of Daniel M. Frost on a tract of Osage Indian land within the reservation, under the act of Dec. 15, 1880, referred to on page 6 hereof, which case has involved a vast amount of correspondence (and is still pending before the Department), but which, for obvious reasons, has not been carried into this statement.

State-selection desk, division of public lands, General Land Office.

Statement in detail, showing the manner of receiving and passing upon lists of selections of land under the various Congressional grants to States for educational and internal improvement purposes.

The lists of selections are sent up by the district officers, either in their regular returns of filings and entries or by special letter.

Should the list be received with the returns the division of accounts examines as to whether the legal fees have been paid or accounted for, and sends the list to the clerk in charge of such selections in the division of public lands; should they be received by special letter they are, after being recorded as letters by the recording clerks of letters received in division A, referred direct to the public lands division, recorded in the records of letters received in the latter division, referred to the clerk in charge of the State-selection desk, and recorded a third time in the records of this section, and the division of accounts is then informed of the receipt of the lists by letter, instead of in the returns, so that it may be observed whether the fees have been accounted for.

The posting clerks of the division, to whom the lists are referred to be made of record in the tract-books, are required to post the selections therein, in order of business with other returns, and note all conflicts between the same and filings, entries, selections, reservations, and grants, should said conflicts exist, and proper references on the lists to the tract-books in which the selections are posted.

The lists are next examined by the clerks of the State-selection desk with reference to conflicts, as to areas, as to whether the tracts selected are subject to selection, in respect to whether the same are selected in bodies of the proper size under the grant, and in regard to whether the selections are in excess of the quantity granted. In school indemnity selections, in addition to such examinations, thorough examinations must be made as to the losses of school lands, or deficiencies therein, upon which the selections are based. Such examinations are very difficult, and frequently involve the gravest legal questions.

Decisions as to the State selections, or the above-mentioned losses or deficiencies, are made by letter to district officers and others. When the case is appealable, appeal is allowed to the Secretary of the Interior and the case closed under the rules of practice in land cases of the Department. The letters are examined by the clerk in charge of the section, the clerk in charge of the division or his assistant, or both, and the law examiners or law clerks of the office, and are properly initialed by the clerks, if approved by them for signature.

Selections deemed proper ones for approval are certified by the clerks entrusted with their examination, as correct, in a list prepared for the approval of the Commissioner and Secretary, and upon the approval of the list by the Commissioner it is forwarded to the Secretary by letter. Upon approval of the list by the Secretary and receipt thereof at this office, a certified transcript of it is prepared and transmitted by letter to the governor of the State, and a copy thereof, not certified, is made, compared with the original, and sent to the proper district land office in order that the approval may be duly noted. The approval is also noted on the records here, and a record of the quantity embraced in the list is charged up against the quantity which the State is entitled to under each grant, except that in cases of school indemnity the grant is adjusted by townships, the tract-books being the proper records on which to debit the State with the quantities selected.

Lists approved in this manner have the effect of divesting the Government of its title to the lands (have the effect of patents), except in passing upon selections under grants providing for the issue of patents or the approval of the President to pass the title, in which the certification and approval of selections are preliminary to the issue of patent, or the approval of the President, as the case may be.

The following statement shows the average amount and character of business performed, transacted, and disposed of, during the periods specified, by the employes in the public lands division of the General Land Office, Department of the Interior:

Average amount transacted during each month of the fiscal years 1884, 1885, 1886, and eight months from July 1, 1886, to March 1, 1887.]

Character of business.	1884.	1885.	1886.	July 1, 1886, to March 1, 1887.
	<i>Number.</i>	<i>Number.</i>	<i>Number.</i>	<i>Number.</i>
Postings by the division.....	27,265.00 $\frac{1}{2}$	33,249.00 $\frac{5}{12}$	27,159.00 $\frac{1}{2}$	27,075.00 $\frac{1}{2}$
Postings by each clerk.....	340.81 $\frac{7}{8}$	330.57 $\frac{3}{4}$	292.03 $\frac{3}{4}$	301.67 $\frac{5}{8}$
Letters written by the division.....	2,508.00 $\frac{1}{4}$	2,679.00 $\frac{1}{2}$	2,664.00 $\frac{1}{2}$	2,749.00 $\frac{1}{2}$
Letters written by each clerk.....	31.36	26.64 $\frac{5}{12}$	28.65 $\frac{1}{2}$	30.63 $\frac{1}{2}$
Pages of record covered by letters written by the division.....	1,685.00 $\frac{5}{6}$	1,704.00 $\frac{5}{6}$	1,762.00 $\frac{1}{4}$	1,598.00
Record pages of letters recorded by each clerk.....	21.07	16.95	18.94 $\frac{1}{2}$	17.80 $\frac{1}{2}$

It is impracticable to state the exact amount of business transacted each calendar month, and therefore it is approximately stated by dividing the total amount of work performed during the periods above mentioned by the number of months in each period. The different classes of work are divided among all the clerks in the above statement.

The apparent falling off in the average of work performed by each clerk since 1884 is accounted for by the careful examination of entries and proofs recently insisted upon.

The above statement does not include the testimony examined, the extended examinations required in numerous cases, the filing of letters and other documents, the copying of old tract-books, and the posting of plats, because it is found impracticable to include these items therein.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of, at the dates specified below, in the public lands division of the General Land Office, Department of the Interior:

Character of business.	Pending July 1, 1883.*	Received during 1884.	Disposed of in 1884.	Pending July 1, 1884.*	Received during 1885.	Disposed of in 1885.
Letters	45, 810	†30, 105	.....	50, 721	†32, 159
Pages of record covered by letters written.....	20, 230	.....	.....	20, 458
Entries and filings	‡286, 812	§327, 186	.....	‡241, 524	§398, 993

Character of business.	Pending July 1, 1885.*	Received during 1886.	Disposed of in 1886.	Pending July 1, 1886.*	Received from July 1, 1886, to Mar. 1, 1887.	Disposed of from July 1, 1886, to Mar. 1, 1887.	Pending Mar. 1, 1887.*
Letters.....	51, 860	†31, 979	.....	32, 147	21, 996	.....
Pages of record covered by letters written.....	21, 148	.....	.....	12, 784	.....
Entries and filings.....	‡249, 808	§325, 914	.....	‡144, 952	§216, 604	.....

* Not known.

† This represents the number of the letters written in the division in answer to letters, and in respect to entries and subjects of various kinds coming before it for action. Many of the letters received do not require answer.

‡ The area covered by these entries and filings has not been computed.

§ The exact number of filings and entries posted is not known. This total shows the postings and annotations of all kinds made on the tract-book.

The following statement shows the average number of employés in the public lands division of the General Land Office, Department of the Interior, during the periods specified:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884	84	83	83	77	76	77	90	101	102	100	99	100
1885	102	101	104	103	103	102	101	97	96	96	94	92
1886.....	92	92	91	88	89	88	88	92	92	92	90	86
1887 (to March 1)	87	91	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

This is a general average.

Upon careful consideration I have concluded that it is impossible to state "the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least," during the period from January 1, 1884, to March 1, 1887, in the division of public lands, General Land Office. It is true that during said period the clerks reported each week the number of entries posted, and letters written, and the copying by pages, but a very large amount of the miscellaneous work was not reported, and no one not acquainted with the exact character of the posting and correspondence could form an idea of the relative industry and capability of the clerks from the reports made. Some of the land districts require many tract books; other districts are so small that few books are required; yet usually the small districts are of the best lands, and in certain of them the business is large and the posting comparatively easy. One hundred entries in certain districts may be posted in a day; the posting of twenty entries in other districts is a good day's work. Where many entries are being made the descriptions of lands are usually short; that is, only one or two subdivisions may be described, whereas, in the arid regions the descriptions are usually lengthy, because it is necessary in order to obtain good land to take tracts in different quarter-sections, or sections, or even townships. What is true in respect to the posting is true in regard to decisions and correspondence. A contested case may have a few pages, and it may have thousands of pages of testimony, arguments, and exhibits. Numerous inquiries are answered in a few lines,

while certain of the questions presented for decision require weeks of preparation and writing. No account has been kept of the pages of testimony examined and the pages of letters and decisions written by each clerk.

This reasoning applies to the character of the work as well as its quantity. A lengthy letter may require very little preparation; a short one may necessitate extended examinations and considerable brain work.

This division is very large and many changes have been made in the personnel of the clerical force during the period comprehended in this report. The special service division and the new board of review have obtained some of the most valuable clerks of the division, and recently a contest division has been formed largely from its force. The difficulty of rating clerks according to industry and fitness must, under the circumstances, be apparent. I could not to-day fix upon the clerk who has done the most or point out the clerk who has done the least work. I can, however, say truthfully, that none of the clerks in the higher grades in the division are lacking in industry, and while as to their relative ability in their respective grades there may be a difference of opinion, all of them are competent to perform the duties to which they are assigned. The copyists are industrious, the amount of work performed by them depending upon their health, rapidity of penmanship, and the character of the copying.

In this connection I would state that the organization of the board of review (division O) and the new contest division has systematized the work of the Bureau. From the foregoing statement it will be observed that, although the division is relieved of the final examination of entries for patenting and of the contested cases, it has to deal with a greater variety of subjects than any other division in the Bureau. It has also more laws to execute and more statutory provisions in general nature unlike to construe.

There is no question that the board of review passes upon that is not first passed upon here, nor is there a question involved in contested homestead, timber culture, timber land, and desert land cases that does not arise in the *ex parte* cases of this division, except possibly certain questions connected with the rules of practice. In passing upon the grants to States and Territories for educational and internal improvement purposes almost every question connected with the land system of the Government arises. The vexed questions connected with them have given rise to numerous decisions of the Department, the Attorney-General, and the courts, some of them apparently irreconcilable, and although this branch of the work forms merely a section of this division, probable no division of the Executive Departments performs work comprehending more legal questions. In this section the contests are retained, following the rule adopted in the office that the questions connected with Congressional grants are more difficult of solution than those pertaining to the claims of settlers. But while the division is scarcely relieved of the consideration of any legal question by the formation of the board of review and the contest division, it has been relieved of cases calculated to divert the attention of clerks already overburdened with work, and, so far as the consolidation of certain branches of work tends to system and harmony in rulings, the division has been benefited by the change.

Until recently it appears that the clerks of the division were not required to make reports in detail of all the items of business transacted. They were required to make reports of work, but it seems to have been the understanding that merely the principal items thereof need be stated. It was not usual to report the time consumed in making examinations or reading testimony. In many cases it is impracticable to keep account of all the work done, or classify it, but under the present system such reports are required as will serve to show to those acquainted with the character of the work performed by each clerk whether he or she is industrious and capable.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the public lands division of the General Land Office, Department of the Interior:

Year.	No. of employés.	Average No. of days present.	Average No. of hours employed daily.*	No. by proxy.	No. of working days.	Average No. of days absent.
1884.....	88	272 $\frac{2}{7}$	7	None	307	34 $\frac{5}{7}$
1885.....	98	270 $\frac{1}{7}$	7	None	301 $\frac{1}{2}$	31 $\frac{5}{4}$
1886.....	89	276 $\frac{1}{7}$	7	None	305	28 $\frac{3}{7}$
1887 (to Mar. 1) .	89	45 $\frac{1}{7}$	7	None	48	2 $\frac{3}{7}$

* The official day is from 9 a. m. to 4 p. m., but 30 minutes is allowed at noon for lunch, making the average hours of attendance not exceeding 6 $\frac{1}{2}$ hours.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the public lands division of the General Land Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to Mar. 1).
Maximum number of days.....	291 $\frac{5}{8}$	300 $\frac{1}{2}$	293 $\frac{6}{7}$	*48
Minimum number of days.....	206 $\frac{2}{7}$	223 $\frac{5}{7}$	232	†7 $\frac{1}{2}$

* Twenty-eight clerks were on duty forty-eight days in January and February, 1887, the entire number of working days.

† The absence of this clerk was enforced by sickness.

CHARACTER OF BUSINESS.—Correspondence, posting, and copying.

PRIVATE LAND CLAIMS DIVISION.

Report of the private land claims division, General Land Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the private land claims division of the General Land Office, Department of the Interior.

The adjustment of private land claims, a class of titles situate in different sections of the country now constituting a part of the Union, having their origin under the Governments preceding the United States in sovereignty. These cases may be classified principally as follows, viz:

Claims in the former Northwestern Territory, arising under the definitive treaty of September 3, 1783, with Great Britain; also British grants in West Florida and portions of the present States of Alabama and Mississippi.

Claims arising under the treaty with France of April 30, 1803, for the purchase of the Province of Louisiana.

Claims arising under the treaty with Spain of February 22, 1819, for the Provinces of East and West Florida.

Claims arising under the treaty with Mexico, concluded at Guadalupe Hidalgo, February 2, 1848, and under the "Gadsden purchase" of December 30, 1853. (The important claims involving large areas of land in California, New Mexico, Arizona, and Colorado, which have been, or remain to be, adjudicated, belong to this class.)

New Madrid locations, in the former Missouri Territory, adjusted under the act approved February 17, 1815, and existing regulations.

Claims in the States of Florida, Louisiana, and Missouri examined and reported to Congress under the act of June 22, 1860, and supplemental legislation.

Claims in California arising under the seventh section of the act approved July 23, 1866.

Donation claims in Oregon and Washington Territory (formerly Oregon Territory) under the act of September 27, 1850, and supplemental legislation.

Donation claims in New Mexico Territory under the act of July 22, 1854.

Donation claims in Arizona Territory under the act of February 5, 1875.

Patents are issued and recorded in this division in all claims of the above classification which become final and are patentable under the law.

Patents are also issued and recorded in this division for all Indian lands, whether for reservations, tribal patents, or allotments of land in severalty.

Indemnity scrip of the following classes, for land lost in place, is issued through this division:

Scrip decreed by the courts under the eleventh section of the "Missouri act," approved May 26, 1824, the provisions of which were extended to the State of Florida by the act of May 23, 1828.

Scrip decreed by the United States Supreme Court in cases there finally determined under the act of June 22, 1860, and supplemental legislation.

Surveyor-general's scrip issued under the third section of the act approved June 2, 1858.

Scrip issued under special acts of Congress.

The examination of assignments and approval of locations made with scrip.

Preparation of certified copies of patents or whatever is on file or of record in the division under section 461, Revised Statutes,

Miscellaneous correspondence,

Statement showing in detail the methods of transacting business in the private land claims division of the General Land Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

One principal item of business in the private lands division of the General Land Office is the adjudication and patenting of Mexican claims in California.

These claims had their origin under Mexican laws, prior to the acquisition of California by the United States, and are protected by the treaty of Guadalupe Hidalgo.

They come to the General Land Office upon the records of continued and various methods of procedure by the original Government, the board of land commissioners for the State of California, the district and Supreme Courts of the United States, and the United States surveyor-general of the State, as provided by act of Congress of March 3, 1851.

The duties of the surveyor-general pertain to the proper survey and segregation of the claim from the public domain in accordance with the decree upon title by the board, or the appellate jurisdiction in the courts aforesaid.

When the claim has been finally confirmed and surveyed it is the duty of the surveyor-general to forward to the General Land Office a transcript of the judicial proceedings in the case, with his duly certified and approved plat and descriptive notes of the claim, as a basis for patent.

Under the supervisory power of the Commissioner of the General Land Office, the several acts of the surveyor-general are carefully and critically examined and approved, or disapproved, as the case may be.

Frequently, from the peculiar phraseology of the decree of confirmation, it is most difficult to arrive at its proper interpretation.

Generally it refers, for a more particular description of the claim, to the original grant or juridical possession, or crude Mexican map, or *diseño*, which are made a part of the transcript of the case; and this necessitates an examination of the claim from its inception in the Mexican Government.

The boundary calls of the grant are, mostly, natural objects, or portions thereof, such as mountain ranges or peaks, oceans, bays, rivers, creeks, &c., uncertain of identification, location, and extent; so that to arrive at a harmonious conclusion much research and close application of various and often conflicting details are required.

If the survey is rejected, another is ordered in accordance with the views of the Commissioner of the General Land Office, and if conflicting interests of contesting claimants are involved, the action of the Commissioner is appealable to the Secretary of the Interior for his final determination, with all the necessary delay attendant thereupon; so that years may elapse before the claim arrives at a proper stage for patenting.

The patent is then prepared by the private lands division in favor of the claimant or his legal representatives, and after referring to the grant, recites as monuments of title the decree on confirmation and the descriptive notes of survey.

A tracing of the plat of survey is also attached and made a part of the patent, which, when completed, is transmitted for the signature of the recorder of the General Land Office and of the President of the United States, after which it is returned to the private lands division, where it is recorded and then delivered to the party or parties entitled thereto or transmitted to the surveyor-general of California for proper delivery.

As an example of the various proceedings in a case of this character attention is called to the report of the Commissioner of the General Land Office to the Secretary of the Interior in the matter of the "Rancho Corte de Madera del Presidio." (General Land Office Report for 1886, p. 212.)

Example of an *ex parte* case. Louisiana confirmed private land claim in the name of Neuville Gallien, No. 341, sixth class.

1886, June 10. Letter from register of district land office, Natchitoches, La., forwarding application for patent for said claim by present parties in interest, through attorney.

1886, June 15. Letter received in General Land Office, registered as No. 64594 in registering division, and referred to private land claim division D; entered in register of letters received, examined by chief of division, and by him referred to clerk in charge of private claims in the Southern States, who took the case up for action in its regular order.

1886, June 23. Letter prepared in division D instructing surveyor-general for Louisiana to prepare and transmit a special plat with descriptive notes of the latest approved survey of the claim, as basis for a patent under section 2447, Revised Statutes.

- 1886, July 2. Surveyor-general sent up an approved duplicate plat and descriptive notes. Received in G. L. O. July 6th. Entered in registering division, numbered 72020, and referred to division D. Entered on register of letters received, and referred by chief of division to clerk having ease in hand. He critically examined the plat and descriptive notes, and found no errors. The plat was then referred to the public lands division C, in order that the claim might be posted in the proper tract-book by the Louisiana book-keeper, and interferences noted.
- 1886, July 28. The book-keeper in division C posted the claim in tract-book, and returned plat to division D with certificate that there was "no conflict on tract-book."
- Plat compared with the survey shown on township plat on file in draughtsman's division L.
- A form, in rough, for a manuscript patent, prepared in division D, and the patent written by a copyist. A copy of the plat prepared by draughtsman in division L to form part of the patent. Complete patent, rough, and plat, compared by clerk in charge of ease, assisted by some other employé.
- 1886, September 4. Letter prepared by division D and sent to the President's Secretary to sign Land Patents, enclosing the patent, of even date, and requesting its signature "under direction of the President."
- 1886, September 4. Letter prepared in division D requesting the recorder of the General Land Office to countersign the patent.
- The patent was returned to division D informally, properly signed and sealed.
- It was then recorded by a copyist in the proper volume, and another copy of the plat of survey, prepared by a draughtsman in division L, was inserted in the record.
- The patent and its record were then carefully compared by the clerk having ease in charge, assisted by some other employé.
- A jacket was prepared for the ease, numbered, and indexed in the docket of Louisiana claims.
- The record of the patent was indexed in a volume kept for that purpose; disposition of all letters in the ease annotated upon the register of letters received and upon jacket. Satisfaction of the claim, by patent, noted on jacket and also upon the original abstract containing the claim.
- 1886, September 10. Letter prepared in division D transmitting patent to register and receiver at Natchitoches, La., for delivery to person legally entitled to its custody.
- 1886, September 10. Letter prepared in division D notifying the surveyor-general at New Orleans of the issuance and delivery of the patent.
- Case closed and papers filed as No. 183, G Louisiana.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the private land claims division of the General Land Office, Department of the Interior :

Character of business.	Pending July 1, 1883.	Received during 1884.	Disposed of in 1884.	Pending July 1, 1884.	Received during 1885.	Disposed of in 1885.	Pending July 1, 1885.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Letters	(*)	1, 179	1, 097	81	1, 318	1, 530	.....	2, 051	2, 031	20
California private land claims	19	3	7	15	.....	2	13	4	.....	17
Oregon and Washington Territory donations	166	12	15	163	.....	59	104	17	37	84
Louisiana, Florida, &c., private land claims	2, 954	107	120	2, 941	10	14	2, 937	9	11	2, 935
New Mexico private land claims	27	.....	1	26	.....	1	25	.....	.....	25
Indian allotments .....	.....	106	106	.....	1, 458	1, 458	.....	740	641	99
Scrip locations	1, 077	309	341	1, 045	567	628	984	245	264	965
Scrip applications (1858)	93	2	4	91	4	1	94	9	.....	103
New Mexico and Arizona donations	281	.....	40	341	.....	226	115	.....	21	94
Claims under act June 22, 1860, to be reported to Congress	5	.....	3	2	.....	.....	2	.....	.....	2
Awards, Las Animas grant, Colorado	6	.....	1	5	.....	.....	5	.....	1	4
Rejected claims, Las Animas grant, Colorado	24	.....	.....	24	.....	.....	24	.....	.....	24
Claims under act July 23, 1866 .....	.....	.....	.....	.....	.....	.....	.....	12	8	4
Claims in New Mexico and Arizona to be reported to Congress .....	.....	.....	.....	.....	7	5	2	50	17	35
Pages of record .....	.....	.....	1, 057	.....	.....	1, 269	.....	.....	1, 847	.....

* Not known.

Pages of record, written by copyists, is given upon this form, as found in the Commissioner's annual reports. This, however, represents only a small portion of the work done by copyists, who write patents and record them, make all certified or other copies required in the division, keep up the various indexes, dockets, &c., and compare work performed.

An inventory has been made, with the above showing, of *docket cases* upon which final action has not been taken by the Land Department of the Government.

There are, however, a large number of private claims in the territory acquired by purchase or treaty, which may at any time be called up for action here, but which are not "docket cases" in the General Land Office. The approximate number of such claims cannot be given. In the State of Louisiana alone it has been estimated that

there are some 10,000 private claims, donations, &c., of which number it is found, by actual count, that 1,292 have been finally adjusted in the private land claims division.

Attention is respectfully called to the statements, in this connection, to be found in "The Public Domain," p. 365, *et seq.*, 1112, *et seq.*, and General Land Office Report, year 1882, pp. 43-51.

No account has been kept, for any particular period, of the character and amount of business transacted or labor performed by individual employé, because no record of this matter has been required, and in most cases would be wholly impracticable.

The following statement shows the average number of employés in private land claims division of the General Land Office, Department of the Interior, during the periods specified:

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1884.....	7	7	7	7	7	7	7	8	8	8	8	8
1885.....	7	7	8	8	8	8	8	8	8	8	8	8
1886.....	8	8	8	6	6	6	5	6	6	7	7	7
1887 (to March 1).....	7	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

This is a general average, but it agrees very nearly with the fractions shown in next table.

No statement showing the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified, in the private land claims division of the General Land Office, Department of the Interior, has been kept, because such action was not required under office or Departmental regulations.

No comparison as to the amount of business transacted by any two employés in the private land claims division can properly be made, for the reason that no two employés are engaged upon work of the same character, except copyists.

The few clerks in this division are fully employed at all times in transacting the business pertaining to their respective desks.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the private land claims division of the General Land Office, Department of the Interior:

Calendar year.	No. of employés.	Average No. of days present.	Average No. of hours employed daily.	No. by proxy.	No. working days.	Average No. days absent.
1884.....	7½	268½	7	None ...	307	38½
1885.....	7⅝	266¾	7	None ...	301½	35⅝
1886.....	6⅝	274⅞	7	None ...	305	30½
1887 (to March 1).....	7	44⅞	7	None ...	48	3⅞

The official day is from 9 to 4 (7 hours), but there is allowed to the employés thirty minutes, from 12 m. to 12.30 p. m., for lunch, which is almost invariably availed of, which would bring the average hours of attendance to not exceeding 6½ hours.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the private land claims division of the General Land Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to Mar. 1).
Maximum number of days.....	281½	277¾	378	48
Minimum number of days.....	235¾	241¾	263½	26

NOTE.—Personal enumeration of employés absent the maximum and minimum time is omitted.

SURVEYING (E) DIVISION.

Report of the surveying (E) division, General Land Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the surveying (E) division of the General Land Office, Department of the Interior.

(1) Preparation of instructions to surveyors-general in the fifteen surveying districts in matters pertaining to the survey of public lands and private land claims.

(2) Examination of all contracts for surveys, writing letters of approval or disapproval, or requiring emendations. Recording the contracts in an appropriate volume showing number and date of the contract, date of approval, amount of contract, and appropriation out of which the same is payable. Noting the surveys to be made under each contract upon maps kept for the purpose, showing at a glance all surveys under contract for the time being.

(3) Correspondence with surveyors-general in matters pertaining to the details of the service.

(4) Issue of instructions to examiners of surveys and correspondence in matters pertaining to their duties.

(5) Careful scrutiny of all plats and field notes of surveys.

(6) Consideration of reports of inspections in the field by examiners of surveys, in connection with the plats and field notes of the surveys inspected.

(7) Writing letters of acceptance or rejection of surveys, in which are given résumés of the findings of the examiners. In case of rejection the particulars wherein the surveys fail to meet the requirements of law and regulations are itemized in order that the same may be placed upon record and to enable the surveyor-general to acquaint the contracting deputy with the reasons which induced the rejection of his work.

(8) Issue of instructions for the survey of Indian and abandoned reservations.

(9) Preparation of contracts and instructions for the survey of State and Territorial boundaries and for surveys in the Indian Territory, and examination of returns of survey upon the completion thereof.

(10) Letters of advice to surveyors-general and local land offices in regard to all Executive orders reserving land for Indian, military, naval, or light-house purposes, or in regard to the modification or revocation of such orders. Noting of Executive orders establishing, modifying or relinquishing reservations, in appropriate volumes and upon the maps of the several surveying districts.

(11) Replies to numerous letters from county surveyors and others, in all the public land States and Territories, seeking information and advice in regard to the restoration of lost and obliterated corners of the public-land surveys and the subdivision of lands.

(12) Preparation of certified copies of field notes and other records required by individuals or for use as evidence in judicial proceedings.

(13) Registering letters received.

(14) Press-copying letters written.

(15) Recording letters to the several Departments and to subordinate branches and officials of the Interior Department, and of such miscellaneous letters as are deemed of sufficient importance to be placed upon the permanent record.

Statement showing in detail the methods of transacting business in the surveying (E) division of the General Land Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the General Land Office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

Upon this division is devolved the superintendence of the entire surveying service (except the survey of mining claims), embracing fifteen surveying districts with the correspondence and miscellaneous duties relating to the survey of the public lands and private land claims both in the States and Territories where surveys are now in progress and in those States where the office of surveyor-general has been discontinued.

The force of eleven employés is divided as follows: 1 chief, 1 assistant chief, 4 correspondents, 1 examiner of surveying returns and special agents' reports, 1 registering and file clerk, 2 copyists, 1 type-writer.

The mail matter received each day is examined by the chief of division and by him assigned, according to its character, to the correspondents in charge of the different classes of work.

The mail is then entered in the division register of letters received, the name of the clerk to whom each case is referred being noted thereon. Letters which are replies to or acknowledgments of letters previously sent out from this office are noted upon the margins of the official record of the letters to which they are replies.

Reports of special agents on inspection of surveys in the field are referred to the clerk having special charge of this class of work, who examines the same in connection with the surveying returns and prepares letters of acceptance or rejection according to the character of the survey as determined by the field examination.

Applications for surveys, contracts, and bonds, and correspondence relating thereto, are referred to the correspondent in charge of the contract desk, by whom the applications are considered, the contracts and bonds examined, noted in contract book and upon the working diagrams of the several surveying districts, and letters of approval or disapproval and all necessary correspondence relating to this class of business prepared.

Executive orders reserving public lands for Indian, military, naval, light-house or other public uses, and correspondence relating thereto, are referred to the correspondent who has charge of the records and files pertaining to such reservations and who makes the necessary examination of the records, prepares reports thereon when called for by the Department, notes the reservations in volumes kept for that purpose and upon the official plats and working diagrams of the several land States and Territories, and prepares letters notifying the proper surveyor-general and local land officers in regard to the lands reserved, in order that the same may be respected in the survey and disposal of the public lands.

Letters from surveyors-general, local land officers, and special agents upon various subjects pertaining to the details of the several branches of the service and miscellaneous letters requesting information, certified copies, &c., are distributed among the several correspondents in the division in the discretion of the chief.

Sample item of business in the surveying (E) division of the General Land Office.

A PUBLIC LAND SURVEY.

- July 19, 1886. Letter from surveyor-general of Colorado, dated July 15, 1886, received at registering room, General Land Office, numbered 77234, noted in register of letters received, surveyors-general volume 16 (volume not paged, but divided into sections for different surveyors-general by leather tags), and referred to Division E (surveys), noted on division register of letters received, volume 6, page 650, and referred by acting chief of division to J. S. Williams, clerk of class three. This letter transmits, for the approval of the Commissioner of the General Land Office, duplicate of contract and bond No. 720, with Benjamin F. Clark, United States deputy surveyor, also special instructions to the deputy under said contract. Liability of contract \$2,244, payable from appropriation for surveying public lands for the fiscal year ending June 30, 1886.
- July 20, 1886, contract and bond examined by said clerk, letter prepared, written out by copyist, approved by acting chief of division and law clerk, signed by Commissioner of the General Land Office July 22, 1886, addressed to the surveyor-general of Colorado, approving contract and bond No. 720, and requiring the surveyor-general to issue supplemental special instructions to the deputy regarding retracements of lines of previous surveys, and calling attention to requirements of the manual of surveying instructions relating to the noting of coal banks or beds. Copy of said supplemental instructions to be forwarded to the General Land Office to be filed with contract. Letter copied in press copy volume 49, page 1, and recorded in record of letters to surveyor-general of Colorado volume 5, page 195. Commissioner's approval indorsed on contract and bond—contract entered in division register of surveying contracts and then transferred to Division M. (accounts), where contracts are kept on file.
- July 30, 1886, letter from surveyor-general of Colorado dated July 26, 1886, transmitting supplemental special instructions to Deputy Clark, contract No. 720, as required by Commissioner's letter of July 22, 1886, received at registering room, General Land Office, numbered 81431, noted in register of letters received, surveyors-general, volume 16, and referred to Division E (surveys). Noted in division register of letters received, volume 6, page 656, and referred to clerk above named. Instructions examined and found correct and filed with Contract No. 720, in Division M. (accounts). Letter filed in Division E.
- August 2, 1886. Letter from surveyor-general of Colorado dated July 28, 1886, recommending that examination of surveys under contract No. 720, with B. F. Clark, D. S., be made during the progress of surveys in the field, received in registering room, General Land Office, numbered 82432. Noted in register of letters received, surveyors-general, volume 16, and referred to Division E (surveys). Noted in division register of letters received, volume 6, page 657. Retained for answer by acting chief of division, James Edmunds, clerk of class four.
- August 6, 1886. Letter prepared by said acting chief of division, written out by copyist, approved by board of law examiners, signed by Commissioner General Land Office, and dated August 10, 1886, addressed to the surveyor-general of Colorado, authorizing that officer to direct Mr. Joshua S. Bond, an employé in his office, to inspect the surveys under said contract No. 720 while in progress in the field. Letter copied in press copy, volume 49, page 119, and recorded in record of letters to surveyor-general of Colorado, volume 5, page 199.
- August 23, 1886. Letter from surveyor-general Colorado, dated August 19, 1886, inclosing duplicate of instructions issued to Joshua S. Bond for the examinations of surveys under said contract No. 720, received at registering room General Land Office, numbered 89925. Noted in register of letters received, surveyors-general, volume 16, and referred to Division E (surveys). Noted in division register of letters received, volume 6, page 667. Instructions to Mr. Bond, examined by assistant chief of division and found unobjectionable. Letter referred to Mrs. E. C. Abbott, clerk class \$1,000 for acknowledgment.

- August 24, 1886. Letter of acknowledgment prepared by said clerk addressed to surveyor-general of Colorado, approved by the board of law examiners, signed by Commissioner General Land Office, dated August 27, 1886; copied in press copy, volume 49, page 183; recorded in record of letters to surveyor-general of Colorado, volume 5, page 202.
- December 20, 1886. Letter from surveyor-general of Colorado, dated December 14, 1886, transmitting duplicate plats and transcript of field notes of a portion of the surveys executed by B. F. Clark under said contract No. 720, received at registering-room, General Land Office, numbered 131,520, and referred to Division E (surveys); noted on division register of letters received, volume 7, page 37, and referred by chief of division to W. C. Miller, clerk of class two, for comparison of plats and field notes.
- December 21, 1886. Letter from surveyor-general of Colorado, dated December 17, 1886, transmitting report of Joshua S. Bond, special agent for inspecting surveys of Benjamin F. Clark under contract No. 720, received at registering-room, General Land Office, numbered 131,933, noted in register of letters received, surveyors-general, volume 16, and referred to Division E (surveys); noted in division register of letters received, volume 7, page 39, and referred by chief of division to J. B. Shinn, clerk class three, but subsequently (upon receipt of the final returns of surveys under said contract from the surveyor-general with his letter dated February 25, 1887) transferred to N. Freeman, clerk of class three.
- March 4, 1887. Letter from surveyor-general of Colorado, dated February 25, 1887, transmitting final returns of surveys under said contract No. 720, received at registering-room, General Land Office, numbered 24,447, noted in register of letters received, surveyors-general, volume 17, and referred to Division E (surveys); noted in division register of letters received, volume 7, page 126, and referred to W. C. Miller, clerk of class two, for comparison of plats and field notes.
- The examiner's report, received with surveyor-general's letter of December 17, 1886, detailing his operation in the field and describing the lines examined, the topography of the country over which the lines pass, the character of the corners established by the deputy surveyor, and the measurements between corners, as found by the examiner, was carefully noted and compared with the plats and field notes of the survey by Mr. Freeman, to whom the matter was referred. The examination of 170 miles of survey showed the same to be generally well executed, and corners properly established, and on March 28, 1887, Mr. Freeman prepared a letter addressed to the surveyor-general of Colorado, accepting the greater portion of the work, but deferring action in regard to the subdivisional survey of three townships on account of apparent irregularities in the surveys along Grand River. Letter approved by the chief of division and law clerks, signed by the Commissioner of the General Land Office, and dated April 1, 1887. Copied in press copy, volume 51, page 435, recorded in record of letters to surveyor-general of Colorado, volume 5, page 246. Accepted surveys laid down on working diagram showing the extension of public surveys in Colorado. Plats and field notes referred, with letter dated April 1, 1887, signed by the chief of division, to Division M (accounts) for the adjustment of the deputy's account and reporting of the same to the Treasury for payment.
- The acceptance of a survey and transmission of plats and field notes to the division of accounts completes the action in surveying division.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the surveying division of the General Land Office, Department of the Interior:

Character of business.	1884.		1885.		1886.		1885.		1886.		1887.		
	Received during	Disposed of in	Pending July 1,	Received during	Disposed of in	Pending at close of	Received during	Disposed of in	Pending at close of	Pending July 1,	Received up to March 1,	Disposed of up to March 1,	Pending March 1,
Letters received.....	4, 212	4, 212	50	3, 600	3, 575	75	4, 122	4, 072	50	75	2, 050	2, 039	86
Letters written.....		3, 459			2, 824			3, 257				1, 664	
Number of record pages.....		1, 913			2, 272			2, 182				1, 074	
Pages of press copy.....		4, 544			5, 312			4, 876				2, 966	
Surveying contracts.....	250	250		96	61	35	221	221		35	4	32	7
Plats and transcripts of field-notes of surveys of public lands and private land claims.....	2, 539	2, 539	132	570	205	497	1, 360	1, 228	132	497	79	170	388
Reports of special agents on field-work of surveys.....				62	40	22				22	53	42	33
Copying of field notes, number of pages.....		1, 500			1, 021			2, 755				1, 417	

A very large number of the letters received and answered in the fiscal years 1884 and 1885 were surveyor-generals' letters transmitting returns of surveys and letters in reply accepting the same.

During those years a great many surveys were made. In 1884 surveys of over fifty-two millions of acres were returned and accepted, and in 1885 over thirty millions of acres. Surveys were then accepted without any field examinations and after an office examination only of the plats and notes.

In the fiscal year ending June 30, 1886, surveys of less than two millions of acres were accepted, and those only after field examinations had been made in most cases,

and the examiner's reports carefully tested in this office in connection with the returns of surveys.

But even with the apparent decrease in the amount of letters received and plats and field notes accepted, it will be seen by the number of pages of record that the work has steadily increased :

Pages of record in 1884.....	1,913
1885.....	2,182
1886.....	2,272

Number of pages for the eight months from July 1, 1886, to March 1, 1887, 1,704, an apparent falling off, which is owing to the fact that the recording of *miscellaneous* letters ceased August 9, 1886, except in a few important cases.

Statement showing the average amount and character of business performed, transacted, and disposed of during the period specified, by the employés in the surveying division of the General Land Office, Department of the Interior.

No record having been kept in the surveying division of the work done by months, it is impossible to furnish such a statement as is called for by this blank.

The following statement shows the average number of employés in the surveying (E) division of the General Land Office, Department of the Interior, during the periods specified :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	9	9	9	0	9	9	9	10	10	10	10	10
1885.....	11	11	11	11	11	11	10	9	9	10	10	10
1886.....	10	10	10	10	10	10	10	10	11	11	11	11
1887 (to March 1).....	11	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Statement showing the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified, in the surveying division of the General Land Office, Department of the Interior :

It is not possible to furnish the information called for by this table because no account has been kept of the separate work of each employé. The reason why such account has not been kept is that it was not considered practicable or necessary, and has not been required. The division is a small one, the chief knows the work performed by each, and the work is so varied and differing in its importance and character that it has not been considered practicable to furnish any account showing relatively the amount and value of the work done by each.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the surveying (E) division of the General Land Office, Department of the Interior :

Year.	Number of employés.	Average number of days present.	Average number of hours employed daily.	Number working days.	Average number days absent.
1884.....	9.44	273.27	7	307	33.73
1885.....	10.33	258.99	7	301.5	42.51
1886.....	10.34	268.86	7	305	36.14
1887 (to March 1).....	11	46.68	7	48	1.318

The official day is from 9 to 4 (7 hours), but there is allowed to the employés thirty minutes, from 12 m. to 12.30 p. m., for lunch, which is almost invariably availed of, which would bring the average hours of attendance to not exceeding 6½ hours.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in

the surveying (E) division of the ——— office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to March 1).
Maximum number of days.....	*283 (†)	*280.39 (§)	*282.93 (||)	*†48 (¶)
Minimum number of days.....	249.57	244.64	249	41

* Assistant chief of division.

† Six of the eleven clerks full time for January and February, 1887.

‡ Chief of division.

§ Corresponding clerk.

|| Examiner of surveying returns.

¶ Type-writer.

RAILROAD DIVISION.

Report of the railroad division, General Land Office, on the methods of business and work, as requested by Senate Select Committee and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the railroad division of the General Land Office, Department of the Interior.

Registering letters received.

Noting distribution of same, and answers when made.

Registering entries of lands within railroad, wagon-road, and canal grant limits.

Docketing contested entries and applications for lands within railroad, wagon-road, and canal grant limits.

Examining and deciding applications and entries for lands within such limits, and notifying the local land officers and the parties in interest of the action taken.

Noting appeals from the decisions made, and transmitting the same, together with all papers and arguments therein, to the Secretary of the Interior for his action.

Promulgating decisions of the Secretary when made, in such cases, and notifying the local land officers and the parties in interest of the contents thereof.

Press-copying all letters and decisions written.

Recording from the press-copies all letters and decisions.

Correspondence upon all subjects relating to the disposal of lands within railroad, wagon-road, and canal grant limits.

Preparing certified copies of the records and of papers and maps on file when called for.

Registering, examining, and recommending for approval all articles of incorporation and maps filed by railroad companies claiming right of way over public lands of the United States under act of March 3, 1875, and other acts granting right of way.

Listing, certifying, and patenting railroad and wagon-road lands.

Adjusting railroad and wagon-road land grants.

Statement showing in detail the methods of transacting business in the railroad division of the General Land Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each until the same is finally disposed of and notice thereof duly given to the proper party.

[SAMPLE ITEM.]

On March 1, 1884, there was received at the registering-room of the General Land Office a letter dated February 23, 1884, from the register at Sacramento, Cal., transmitting the record of testimony taken at a hearing had at the said office January 14, 1884, upon the application of Nathan B. Hall to make homestead entry of lot 1 of NE. $\frac{1}{4}$, SE. $\frac{1}{4}$ NE. $\frac{1}{4}$ and N. $\frac{1}{2}$ SE. $\frac{1}{4}$ of section 25, Tp. 13 N., R. 6 E., M. D. M., together with the opinion of the register and receiver in favor of Hall's application and appeal therefrom by the railroad company.

Said letter and inclosures were registered in vol. 20, numbered 23626, and referred to the railroad division. Upon receipt thereof the chief of said division referred them to a fourth-class clerk, by writing, in pencil, the name of the clerk upon the letter inclosing the same. They were then handed, by the chief, to the registering clerk of the division, who entered them upon his register, and then laid them upon the desk of the clerk named, in pencil note, by the chief.

In April, 1884, the case was taken up by the said clerk, and after a careful examination of the testimony (which showed that one Daniel Heryford, a citizen of the United States, and a qualified pre-emptor, was residing upon, improving, and claiming the land at the date when the right of the railroad company should have attached), he prepared a letter, addressed to the register and receiver at Sacramento, setting forth the facts, and permitting Hall to make entry of the land, subject to appeal within sixty days. He also prepared, at the same time, a letter addressed to Henry Beard, attorney for the railroad company, Washington, D. C., advising him of the purport of the decision made, and allowing him sixty days within which to appeal therefrom.

The said clerk placed his initials upon these letters and delivered them to the chief of the division, who carefully examined them, and approved the same by placing his initials thereon. The chief then delivered them to the law clerks of the land office, who also made a careful examination of the same and approved them by placing their checks in colored pencil (which were equivalent to initials) upon the same.

They were then handed to the Commissioner by the law clerk for examination and signature. The Commissioner, upon examination, approved the same by affixing his signature thereto. They were then returned by a messenger to the railroad division, where they were dated April 7, 1884, by the chief and then handed to the press-copying clerk, who made press-copies of the same, and then laid them upon the desk of the writer, who made notes of their contents upon the case, and then mailed them to the parties to whom they were addressed.

April 28, 1884, an appeal from said decision, by Henry Beard, attorney for the railroad company, was received at the registering-room of the General Land Office, which was registered in vol. 65, page 47, numbered 44672, and referred to the railroad division. The chief of said division noted the name of the appeal clerk thereon, and handed the appeal to the registering clerk of the division, who entered it upon his register, and then handed the same to the appeal clerk, who placed it with the other papers in the case, and handed the whole to the docket clerk, to be by him made into what is called a "docket case." The said clerk entered the papers upon his docket No. 5, and then placed them in a jacket numbered 4210, prepared by him for that purpose, and upon which was written the title of the case, and all action taken thereon to that date. The case was then placed in the files of docket cases.

On July 2, 1884, a letter was received at the registering-room of the General Land Office from the register at Sacramento, Cal., reporting that no appeal had been filed in that office by the Central Pacific Railroad Company from the decision of the Commissioner of April 7, 1884, in the case of Nathan B. Hall vs. the said company. This letter passed through the ordinary course of being registered, numbered, &c., until it reached the appeal clerk, who filed it with docket case No. 4210.

In February 1885, a letter was prepared by the appeal clerk transmitting to the Secretary of the Interior, on appeal, the papers in the case of the Central Pacific Railroad Company vs. Nathan B. Hall, involving lot 1 of N. E. $\frac{1}{4}$ SE. $\frac{1}{4}$, NE. $\frac{1}{4}$ and N. $\frac{1}{2}$, SE. $\frac{1}{4}$ of section 25, 13 N., 6 E., M. D. M., Sacramento, Cal. The said clerk at the same time prepared a letter, addressed to the register and receiver at Sacramento, advising them that the said case had been sent up on appeal to the Secretary. He also addressed a letter to Henry Beard, attorney for the railroad company, advising him of the action taken.

These letters passed through the regular course of examination as those preceding until they reached the Commissioner and were signed by him, and returned by messenger to the chief of the railroad division, who dated them February 20, 1885; they were then press-copied by the press-copying clerk and returned to the writer, who mailed them to the proper parties.

January 4, 1886, a letter from the Secretary of the Interior, dated December 23, 1885, affirming the decision of the Commissioner of the General Land Office of April 7, 1884, in the case of the Central Pacific Railroad Company vs. Nathan B. Hall, was received at the registering-room of the General Land Office, which was duly registered and numbered 554, and referred to the railroad division. This letter passed through the regular course of those preceding until it reached the appeal clerk, who made, or caused to be made, a copy of the same. He then prepared a letter addressed to the register and receiver, Sacramento, Cal., advising them of the purport of the Secretary's decision, and inclosing the copy of the same, and directing them to permit Nathan B. Hall to make homestead entry of the land involved. He also prepared a letter addressed to Henry Beard, attorney for the railroad company, advising him of the Secretary's decision.

These letters also passed through the usual course of examination, were signed by the Commissioner and returned to the railroad division, where they were dated January 9, 1886, duly press-copied and mailed to the proper parties, their date and purport being noted upon case No. 4210, which was then marked "Closed." The result of this action was the elimination of the railroad claim, thus rendering the land subject to entry by Hall, or the first legal applicant. The records of this office do not show that Hall has made entry of the land.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of, at the dates specified below, in the railroad division of the General Land Office, Department of the Interior:

Character of business.	Pending July 1, 1884.	Received during 1885.	Disposed of in 1885.	Pending July 1, 1885.	Received during 1886.
Applications for lands	7,484	2,069	1,388	8,165	4,879
Letters .....	.....	6,538	7,413	.....	8,910
Railroad selections.....acres..	11,861,608.50	2,411,449.31	1,153,950	13,119,109.81	2,298,241.81
Wagon-road selections...do....	29,735.48	128,067.24	549.42	157,253.30	440

Character of business.	Disposed of in 1886.	Pending July 1, 1886.	Received during 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Applications for lands.....	2,173	10,871	1,948	2,380	10,439
Letters.....number..	6,187	.....	5,004	5,073	.....
Railroad selections.....acres..	100,823.02	15,316,526.60	3,092,662.41	195,434.98	18,213,755.03
Wagon-road selections...do....	549.42	157,143.88	54,929.71	.....	211,773.59

The discrepancy between the number of letters received and the number written is explained on the ground that the letters received are not only letters of inquiry, requiring direct answers, but embrace also letters transmitting applications to enter lands, to dispose of which requires from one to four letters.

The number of letters on hand at the beginning of the calendar year has never been kept, and therefore cannot be given. The above statement shows the number of letters received and number written during the year.

The following statement shows the average number of employés in the railroad division of the General Land Office, Department of the Interior, during the periods specified:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	23	23	23	23	23	23	23	24	25	25	24	25
1885.....	27	28	28	28	28	27	26	27	27	27	27	24
1886.....	22	21	21	21	21	22	31	33	29	29	30	32
1887 (to March 1).....	32	31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the railroad division of the General Land Office, Department of the Interior:

Year.	No. of employés.	Average No. of days present.	No. of hours employed daily.	No. by proxy.
		<i>D. H. M.</i>		
1884.....	24	270. 3. 00	7	0
1885.....	27	267. 6. 18	7	0
1886.....	26	269. 2. 03	7	0
1887 (to March 1).....	31	46. 2. 27	7	0

Possible number of days for 1884, 307; for 1885, 301½; for 1886, 305; for 1887 (to March 1), 48.

Average time lost per employé for 1884, 36 days 4 hours; for 1885, 33 days 4 hours 12 minutes; for 1886, 35 days 4 hours 57 minutes; for 1887, 1 day 4 hours 33 minutes (to March 1).

Thirty minutes for lunch are allowed each day.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the railroad division of the General Land Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to March 1).
Maximum number of days.....	292	282	297	48
Minimum number of days.....	231	236	197	24

Number of days possible for 1884, 307; for 1885, 301½; for 1886, 305; for 1887, 48.

[*Note by Committee:* Statement of names of employés present, &c., most and least omitted.]

Maximum time (in this case meaning all possible working time) has been made by a number of employés.

PRE-EMPTION (G) DIVISION.

Report of the pre-emption (G) division, General Land Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

The work of this division relates to the examination of claims arising under the pre-emption law. Primarily it is an inspection of the proof offered by parties in support of their pre-emption claims. Incidentally it involves the disposition of contested cases arising between pre-emptors on the one hand and claimants under the pre-emption, homestead, timber culture, desert land, timber and stone, and town-site laws. Applications for amendment of erroneous filings and entries and for restoration of pre-emption rights are also an important branch of this division.

The clerks at present are divided as follows:

One chief of division.

Three examiners of contested cases.

Nine examiners of *ex parte* cases.

Two examiners of applications for amendment.

Two examiners of applications for hearings.

One examiner of appeals.

Two corresponding clerks.

Five recorders or copyists.

Four clerks on dockets and files.

One examiner of town-sites.

The chief of division has a general supervision of the work, referring the mail to the proper clerks, reading all official letters written in the division, and passing upon the questions involved before they are submitted to the reading and law clerks of the Bureau, and keeping a record of the attendance.

The examiners of contested cases inspect the office record of the tract in contest, read and pass upon the testimony and legal questions involved, prepare the decision of the Commissioner thereon, and dispose of the motions incidental to the case.

The *ex parte* clerks examine the formal proof of pre-emption entries, inspect the records for conflicts, and finally, if the entry is satisfactory, recommended it to the board of review for final examination, with a view to patenting the same. If a defect appears in the proof or entry papers, the local officers are notified of such defect by letter, and the case is suspended until the defect is cured.

The correspondents answer by letter all communications addressed to this office relating to pre-emption questions, except letters from the local officers transmitting reports or supplemental proof in suspended cases, which are usually referred to the clerk who suspended the entry.

Applications for hearing are examined with a view to ascertaining the grounds on which they are asked, and if a *prima facie* case appears, a hearing is ordered by letter addressed to the register and receiver of the proper land district.

Amendment clerks examine the proof offered in support of the application for amendment, and pass upon the sufficiency of the same. This work involves careful scrutiny of the record of the tract sought to be covered by the amendment, and is often much delayed by the backward condition of the posting of the tract-books in the public lands division.

The appeal clerk examines the appeal, and if in form, transmits the same, together with the entire record of the case and a copy of the decision of this office to the Secretary of the Interior. If not in form as prescribed by the rules of practice, the appeal is returned to the local officers for correction. When the case is returned by the Secretary, the appeal clerk finally disposes of it, transmitting a copy of the decision to the local officers, advising local attorneys thereof, and having proper notations made on all the records affected by the decision.

The recorders enter upon the records copies of letters and decisions sent out from the division, carefully comparing the record with the original, before the latter is mailed. They also prepare such copies as are required incidental to the work of the division. When not otherwise occupied they make jackets for *ex parte* cases.

The docket clerk enters every contested case upon the docket, provides it with a jacket on which is noted every action had in the case, which he afterwards transcribes to his docket. He withdraws from the public lands division all entries and other papers involved in the case.

The *ex parte* cases are jacketed, briefed, and recorded in suitable books, in numerical order, and after final disposition are charged out on the same book to the board of review.

A special record is provided for the registry of all letters received, a brief synopsis of their contents, the clerk to whom referred, and the date of answer. This work consumes the entire time of one clerk.

The file clerks have charge of the files, withdrawing cases for the use of clerks, and returning them to their places when completed. These clerks, with the docket clerks,

answer all inquiries of attorneys as to the status of cases in which they are interested.

The town-site desk is not properly a part of the pre-emption division, but has had a place in that division for many years.

The clerk has charge of all matters relating to town-site entries and town-site reservations, keeping the records thereof, passing upon town-site applications, examining the proofs offered in support of town sites, and deciding all contests in relation thereto.

Statement showing in detail the methods of transacting business in the pre-emption division of the General Land Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the General Land Office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

Pre-emption cash entries are received in the mail, accompanied by the monthly abstracts of the register and receiver of the sales for the month in which they were made. From the mail room they are referred to division M (accounts). After an examination of the account and an entry of the sales has been made, the abstract and entries are referred to division C (public lands), where they are posted in the proper tract books, and entered on a charge book and then sent to this (G) the pre-emption division. Here they are jacketed by the copyists, the jacket containing an indorsement of the name of the entryman, description of the land entered, the number of the entry, and the name of the land office where made. This indorsement, with the exception of the name of the entryman, is entered upon a set of books known as the credit books, after which the entries are placed in the files for five months, the object being to avoid examining an entry until all possible adverse claims shall have been made of record in this office. When reached in its numerical order, the entry is assigned to an *ex parte* examiner. The first step is to examine the docket to see that no contest is pending against it, and that if the entry is the result of a contest decided in the past, the instructions of this office have been complied with. The same clerk then takes the case to the public lands division, where the tract embraced in the entry is scrutinized, and all conflicting claims noted. If the conflict is with another entry, that entry is withdrawn and entered upon the credit book. The certificate of entry is compared with the receipt and the proof papers, that any discrepancy in the name, date, or tract may be detected. The proof is then taken up, being made by questions and answers on blanks furnished by this office. If there are no conflicting claims, and no defects in the proof presented, the entry is recommended to the board of review for patent; it is delivered to the credit book clerk, who charges it off of his book and delivers it to the board of review, where the case is re-examined. If there found correct it is approved for patent and delivered to the recorder. In the recorder's division it is again entered on a charge book, and given to the patent writer. After the patent has been written and recorded, it is compared with the certificate of entry and the patent record, and, if found correct, delivered to the party holding the duplicate receipt therefor. The case is then filed away. If the *ex parte* examiner in this division finds a conflict or a defect in the proof, or both, a letter is written to the local officers of the office at which the entry was made, setting out such defects; in the case of an adverse claim, sixty days are allowed the adverse claimant within which to show cause why his adverse claim should not be canceled. If he fails to respond within the time allowed, upon report of the local officers to that effect, the claim is canceled and the entry recommended to the board of review. If supplemental proof is needed, a similar letter is written to the local officers setting out the defect and requiring them to notify the claimant of such defect and calling upon him to rectify it by proper proof. Upon its receipt the case is again considered and if satisfactory sent to the board of review; if not satisfactory a further call is made. If the necessary proof is not furnished, the entry is held for cancellation, and appeal allowed to the Secretary of the Interior. If no appeal is taken the entry is canceled, the cause of cancellation noted across the face of the certificate, together with the date thereof. The certificate and receipt are placed in a "cancellation jacket" and charged to the recorder's division, where they are filed away. The proof is retained in the closed pre-emption files. If an appeal is taken, the appeal clerk transmits the entry and the decision rejecting it to the Secretary, the case being regularly docketed on the contest docket. Upon its return from the Secretary the appeal clerk close the case in accordance with the Secretary's instructions, notifying the local officers of such action. If the Secretary

affirms the action of this office the case is canceled as above recited ; if this office is reversed the case goes in usual course to the board of review.

Should the board of review discover defects, overlooked by this division, a minute is made thereof and returned to this division with the case, when the same course is pursued to complete the proof. The letters written are presented to the chief of division, who, if he approves of them, notes his initials thereon, and sends them to the reading clerks. If they approve their initials are also noted, and the letters are then presented to the Assistant Commissioner for signature. If the reading clerks do not approve, their objections are returned with the letter to the writer. The signed letters are returned to the writer, who, after making a press-copy thereof, notes the action on the case and returns it to the file clerk and presents the letter to the recorder. After being compared with the record it is sent to its destination. An examination, on an average, of eight cases a day is good work for a diligent clerk.

Contested cases involving pre-emption rights come to this division directly from the mail room. After being charged on the letter register they are placed in the hands of the docket clerk, who prepares a jacket, giving the title of the case, the name of the land office, and the number of the docket, case, and page, and draws all entries and papers from other divisions relating thereto. The case is then placed in the files for thirty days to afford attorneys an opportunity to examine the record. This record is prepared at the local office, and consists of testimony taken, exhibits filed, the opinions of the register and receiver thereon, together with a letter of transmittal setting out in brief a history of the case up to date of transmission. The testimony, of course, varies in quantity, some records containing several hundred pages of closely written manuscript, and others again but very few pages. As the cases come in order for examination they are taken up by the contest clerk, who first examines the tract book for adverse claims, and then reads the record, passing upon all questions of law and fact raised, and prepares a decision containing a statement of the facts established and the conclusions derived therefrom. Local attorneys, if any, are also notified by letter of the action taken. The decision is submitted to the chief of division, who notes his approval by initialing the letter. It is then passed upon by the law examiners, who also note their approval by initialing the letter, and then present it to the Commissioner for signature. In case of disapproval the letter is returned to the writer, with a note stating the objection thereto. After signature the letter is returned to the writer, who notes his action on the jacket of the case, makes a press-copy of the letter, returns the case to the docket and file clerks, and presents his letter to the proper recorder. Should a motion for review be filed it is docketed with the case and referred to one of the contest clerks, other than the one who prepared the decision, who passes upon it, writing a letter to the local officers advising them of the action taken thereon. If an appeal from the Commissioner's decision is taken it comes through the mail, is noted on the letter register and docket and is then given to the appeal clerk, after which it takes the course as in *ex parte* cases.

Applications for amendment of pre-emption filings or entries, come through the mail, are placed on the letter register and then referred to the amendment clerks. Each application involves a scrutiny of the record of the tract sought to be embraced in the amended filing or entry, and then the principles of law applicable to amendments are applied. If an amendment is allowed, a letter to that effect is addressed to the local officers of the land district from which the application emanated, which letter takes the course given under the head of *ex parte* cases. After signature the letter is presented to the proper clerk of the public lands division who makes the necessary notations upon the tract book. The letter is then press-copied, recorded, and sent out. If the application is denied a letter to that effect is prepared, and after taking the usual course of letters in *ex parte* cases is sent out.

Applications for restoration of pre-emption rights are similarly acted upon.

Applications for hearing are received through the mail, and after being placed on the letter register are referred to the proper clerk. These applications also involve a scrutiny of the tract book, and an examination of the affidavits filed in support thereof. If a *prima facie* case is presented, a hearing is ordered, the entry attacked withdrawn, the local officers notified, and upon receipt of the testimony the case is docketed and becomes a contested case. If a hearing is refused, the local officers are so advised by letter, and the application, with a proper indorsement, filed away.

The dockets contain a complete history of the several actions had in each case, and the proper keeping of them occupies the entire time of one clerk, and the credit books the entire time of two clerks.

The town site desk receives the town site entries from the clerk in charge of the credit book, notes them on a special town site docket, examines the proof, and allows or disallows the entry after the manner of *ex parte* entries. The reservations for town sites are directly under his supervision. He furnishes the local officers all instructions relative to the manner of procedure in offering the town lots for sale; posts the entries on his special tract books, after receiving them with the abstracts from the division of accounts; examines the entries after the manner of *ex parte* cases, and charges them

to the board of review when satisfactory. All accounts involving town lots or town site entries, except when in conflict with railroad grants or mineral claims, are disposed of by this clerk, and all correspondence relating to this subject is carried on by him.

Exemplified copies of the records are prepared and transmitted as occasion requires.

Sample of work performed in the pre-emption division.

- With letter of July 29, 1880, the register and receiver at Roseburg, Oreg., transmitted the papers and their joint opinion in the case of Millard Shoemaker *v.* Hugh Duffy, to this office. This was a contest between a homestead and pre-emption claimant, and the hearing had been had and testimony submitted to the local officers. The letter was received in the mail room September 1, 1880, where it received the current letter number, 57903, 1883. It was entered on the register of letters received, and on the numerical index and referred to this division. It then went into the hands of Mrs. L. M. Mattingly, who entered the same on the division register of letters and referred it to Mr. O. Whitney, then in charge of the docket. He prepared a jacket for the case with the following indorsement: "Roseburg, Oreg., Millard Shoemaker *v.* Hugh Duffy, Doc. 10, Case 95, page 78," and entered the case on said docket and page, giving the letter and its inclosures the docket number 1. He also withdrew from the public lands division Duffy's homestead entry No. 3349, and gave it docket number 2, at the same time entering it on the credit book, vol. 1, p. 656. On November 5, 1881, Mr. P. H. Seymour prepared a decision in the case, awarding the land to Shoemaker, subject to appeal. This decision was read by Mr. Henry Howes, chief of division, and after initialing the decision "H. H.," submitted it to the reading clerks, who also initialed it and presented it to the Commissioner, N. C. McFarland, for signature. The signed letter was returned by messenger to Mr. Howes, who handed it to Mr. Seymour, who made a press-copy thereof and caused it to be recorded by Mrs. H. E. Gray in vol. 159½, page 178, of the register and receiver's record, and carefully compared with the record, after which it was mailed to its destination. A notation of the decision was briefly made on the jacket, which was entered on the docket by Mr. Whitney and the case returned to the files. On January 26, 1882, a letter was received from Hon. M. C. George, of the House of Representatives, without date, asking the status of the case. This letter was received in the mail room January 26, 1882, briefed, and numbered 7233. After being registered on both registers it was sent to the public lands division and by the chief of that division handed to Mr. McNulty, who registered the same and handed it to Mr. Peirce, in charge of the Oregon books. Mr. Peirce finding a pre-emption claim involved, referred the letter to this division. It was accordingly, on January 26, 1882, charged off the register of letters in the public lands division, returned to the mail room, then charged to this division, and by Mr. Howes, the chief, referred to Miss Mary C. Torrey for answer. By her a letter was written informing Mr. George of the decision in the case; this letter was read and initialed by Mr. Howes and the reading clerks, and signed by the Commissioner January 28, 1882, returned to Miss Torrey, press-copied by her, and entered on the record, after which it was sent by special Congressional mail to the House of Representatives. A minute was made on the jacket of the case, and the letter and a copy of the minute was entered on the docket by Mr. S. H. Jecko, then docket clerk, the letter receiving docket number 4.
- On February 8, 1882, a letter dated on that day, was received from Hon. L. Grover, of the United States Senate, inclosing a letter from Mr. Duffy, asking that a rehearing of the case be granted, or that the time for appeal be extended. In the mail-room this letter received the current letter No. 11443, 1882, and referred to division C (the public lands division), where it was entered on the letter-register and given to Mr. Peirce for attention. Finding that the case was in the pre-emption division Mr. Peirce referred the letter to that division, February 11, 1882, having it charged off the division register, and the numerical index of the mail-room. On reaching this division, Mr. Howes, the chief of division, referred it to Mr. Barnes for answer. After being entered in the division register of letters received, vol. 27, p. 109, Mr. Barnes received the letter and hunted up the case. Finding that Mr. Seymour had taken action thereon, the letter was given him, and on February 14, 1882, he prepared an answer to Mr. Duffy's letter, advising him of the status of the case, and instructing him how to proceed to perfect an appeal. A letter was also prepared by Mr. Seymour to Senator Grover, inclosing the letter to Mr. Duffy for inspection and transmission. Both letters were read and initialed by Mr. Howes and the reading clerks, and signed by the Commissioner. Mr. Seymour then press-copied and caused them to be recorded in vol. 58, pp. 269 and 271, respectively, of the miscellaneous record, and inclosed, with a penalty-envelope addressed to Mr. Duffy, to Senator Grover. Proper notations were made on the jacket of the case and on the docket, the letter receiving docket No. 5.
- By letter of February 24, 1882, the register of the land office at Roseburg, Oreg., reported that no appeal had been taken from the decision of November 5, 1881. This letter came through the mail-room, receiving the current number 20032, 1882, and after being registered on both registers was referred to this division, where after registry it was filed with the case, and noted on the docket having docket No. 6. On March 13, 1882, a letter was prepared by Miss M. C. Torrey directing the local officers at Roseburg, Oreg., to allow thirty days additional for an appeal, if desired. This letter was initialed by Mr. Howes, the chief of division, the reading clerks, and signed by the Commissioner; was returned to Miss Torrey, who press-copied and caused the same to be recorded in vol. 160, p. 90 (register and receiver) record, and carefully compared and mailed. Notations of the contents of the letter were made on the jacket of the case and on the docket.
- A letter from L. F. Grover, of the United States Senate, dated May 21, 1882, asking for a rehearing, was received in the mail-room June 1, 1882, and was registered as No. 43406, 1882, and referred to division C (public lands), and on the letter register of that division charged to Mr. Peirce, who in the usual course on the same day referred the letter to this division. It was assigned to Mr. Seymour, who prepared an answer, which passed through the hands of the chief of division and the reading clerk, and was signed by Commissioner McFarland June 7, 1882. It came back to Mr. Seymour, who made letter-press copy of it, and had it recorded in vol. 58, p. 149, and carefully compared, and then sent to Senator Grover, whose letter received docket No. 7.
- On June 9, 1882, a letter, dated May 25, 1882, transmitting the appeal of Duffy, was received in this division, it having been received June 6, and duly registered and numbered 44743, and referred to division C, when Mr. Peirce, into whose hands it fell, referred and transferred it to the pre-emption division, the chief of which assigned it to Miss Torrey, who, after the same had been registered, filed it with the case as docket No. 8.
- On June 26, 1882, Mr. Seymour prepared a letter of instructions to the register and receiver at Roseburg, Oreg., relative to the case. This letter received the approval of the chief of division and the reading clerks, and the signature of the Commissioner, and was then press-copied by Mr. Seymour, recorded and compared, and transmitted to the local officers at Roseburg; such action being noted on the jacket and docket.

- On July 31, 1882, a letter from the register at Roseburg, Oreg., dated July 20, 1882, reporting in answer to letter G, June 26, 1882, above referred to, was received, registered, and numbered 59977, referred to Mr. Peirce of the public lands division, and by him referred to this division August 2, 1882, entered on register vol. 30, p. 76, and referred to Miss Torrey, who filed it with the case as docket No. 9. In reply thereto Mr. Seymour, on August 14, 1882, called for a further report, the letter passing through the hands of the chief of division, the reading clerk, and the Commissioner, press-copied by Mr. Seymour, and recorded in vol. 164, p. 172. To this a reply was received September 7, 1882, dated August 26, from the register, which in the mail-room was numbered 70179, and then referred to the public lands division, whence Mr. Peirce referred it to this division September 9, 1882. Registered in vol. 20, p. 162, and filed with the case as docket No. 10.
- On September 15, 1882, Mr. Seymour prepared a decision dismissing the appeal and motion for new trial. Decision passes through the usual course, and was recorded vol. 164, p. 247.
- This decision closed the case. Proper notations were made on the docket and jacket, the homestead entry of Duffy was returned to the public lands division, and the case placed in the "special" or closed files.
- On February 22, 1882, Millard F. Shoemaker made pre-emption cash entry, 5012, at Roseburg, Oreg., for E. $\frac{1}{2}$ of S. E. $\frac{1}{4}$, S. E. $\frac{1}{4}$ of N. E. $\frac{1}{4}$, and lot 1, Sec. 2, 31 S., 15 W., for which he had on November 1, 1879, filed declaratory statement No. 3639. The cash entry, 5012, was transmitted by the local officers with their monthly returns, on March 1, 1882, being received in the usual course of mail, March 17, 1882, in the mail-room where the letter of transmittal received the current office number, 22155, series of 1882, and was referred to division M. The abstract and entries received (including No. 5012) were compared, examined as to correctness in the matters of name, description, area, number, and price paid, and referred to division C (the public lands division), where in due course this entry was posted on the proper tract book, vol. 26, S. & W., p. 13, entered on the charge book, and referred to this division, where it was received on May 15, 1882. In due course it was placed in a jacket (office blank No. 558) and received the following indorsement: "Credit book, vol. 1, p. 657, cash No. 5012. L. O., Roseburg, Oreg. Name, Millard F. Shoemaker. Tract, E. $\frac{1}{2}$ of S. E. $\frac{1}{4}$, S. E. $\frac{1}{4}$ of N. E. $\frac{1}{4}$, and lot 1, sec. 2, Tp. 31 S., R. 15 W. February, 1882." At the same time it was entered upon the credit book and placed in the open files awaiting examination.
- On March 23, 1883, Capt. John Mullan filed in the mail-room a motion to have the contested case reopened. This motion was registered as No. 28419, 1883, and referred to Mr. Seymour of this division; after going on to vol. 31, p. 128, of the division register was filed with the case as docket No. 12. On April 3, 1883, Mr. Seymour prepared a letter addressed to Capt. John Mullan declining to reopen the case. This letter passed through the usual course, and is recorded in vol. 61, p. 69, miscellaneous record.
- On May 21, 1883, Capt. John Mullan filed a motion for *certiorari* in the office of the Secretary of the Interior under Rules of Practice 83 and 84.
- On May 24, 1883, the application was allowed, and the Commissioner of the General Land Office directed to send up the record, the letter receiving docket No. 13. Duffy's homestead entry was again withdrawn from the public lands division, re-entered on the credit book, same volume and page, and on the docket, same volume and page, under docket No. 14.
- On May 31, the papers were certified to the Department, and by letters of the same date Captain Mullan and the local officers at Roseburg were advised of such action. These letters are recorded volume 61, page 286, miscellaneous record, and volume 170, page 431, register and receiver record.
- These papers were received by the Secretary June 11, 1883, with letter of May 31, which is entered on register 15, page 446. Case entered on appeal docket 3, page 267, and numbered 1067.
- July 18, 1883, the cash entry of Shoemaker was transmitted to the Secretary and filed with the case as docket No. 15. November 10, 1883, additional papers were transmitted to the Secretary, registered, and filed with the case.
- December 1, 1883, all papers in the case laid before the assistant attorney-general for the Department for consideration. December 7, 1883, Commissioner's decision was affirmed by letter signed by Secretary Teller, which with the papers was sent to the General Land Office. This decision directed procedure under decision of November 5, 1881, and was registered in the mail-room as No. 114620, 1883, and was entered in this division, volume 32, page 402. By letters of December 14, 1883, prepared by Miss Torrey, the local officers at Roseburg and Capt. John Mullan were advised of the purport of the Secretary's decision, a copy of the same being transmitted to the local officers. These letters are recorded in volume 62, page 460, miscellaneous record, and volume 174, page 452, register and receiver record.
- On March 8, 1884, a letter dated February 28, 1884, from the register at Roseburg, was received, transmitting motion for new hearing. Numbered 262269, registered page 219, vol. 33, and filed with case as docket No. 16.
- March 26, 1884, in a decision addressed to the register and receiver at Roseburg, and prepared by Mr. J. C. Johnston, the motion for rehearing was denied, and Duffy's homestead entry held for cancellation. April 23, 1884, adverse pre-emption filings were canceled by letter prepared by Mr. Johnston, recorded vol. 180, page 407.
- April 19, 1884, letter of register, dated April 9, 1884, reporting as to action of other claimants under decision of Secretary was received. Numbered 41954, 1884, and registered vol. 33, page 387, and filed with the case as docket No. 17.
- On June 5, 1884, an appeal was received from Capt. John Mullan, in behalf of Duffy, registered as 58262, and entered on division register 234, page 70, and filed with the case as docket No. 18. June 6, 1884, Captain Mullan filed certain inclosures in the case, his letter being numbered 58515 and registered vol. 34, page 76, in this division, filed with the case as docket No. 19. On July 28, 1884, the appeal was returned to Captain Mullan by Miss Torrey with instructions relative thereto. Recorded vol. 64, page 445.
- September 19, 1884, papers were transmitted to the Secretary by letter, recorded vol. 65, page 166, miscellaneous record. At the same time Captain Mullan and the local officers were advised of such action by letters recorded in 65, 167, miscellaneous record, and 184, page 44, register and receiver record. The papers were received by the Secretary September 23 and entered in register 18, page 33. Appeal was entered in same docket as before, under same number, and marked "resubmitted September 19, 1884." On September 24, 1884, all papers in the case laid before the assistant attorney-general for the Department for consideration October 28, 1884, Commissioner's decision affirmed by letter signed by H. L. Joslyn, Acting Secretary, which, with the papers in the case, were sent to the General Land Office, where in the mail-room said letter was numbered 108208, and referred to this Division, registered in volume 35, page 137. Captain Mullan and register and receiver were advised of this action by letters dated November 5, 1884, and recorded volume 188, page 103, miscellaneous record, and volume 65, page 366, register and receiver record.
- December 10, 1884, a letter was received from Captain Mullan (registered as No. 120648, 1884), inclosing a letter from Hon. Binger Hermann, House of Representatives, asking that all the papers be returned to Roseburg for action, registered volume 35, page 285, and filed with the case as docket No. 20.

January 5, 1885, register at Roseburg reports by letter action taken by Duffy, registered as No. 5883 1885, on page 435, volume 35, filed with the case as docket No. 21.

January 9, 1885, register at Roseburg, by letter (7338, 1885), requests all papers. Registered in volume 35, page 443, filed with case as docket No. 22.

January 28, 1885, Miss Torrey wrote Captain Mullan (record 66, page 229) the status of the case.

February 5, 1885, all testimony was returned to the local officers, all papers in the case, with instructions. Recorded volume 188, page 367, register and receiver record. Captain Mullan was advised hereof same date; letter recorded volume 66, page 270, miscellaneous record.

By letter of March 2, 1885, received March 19, 1885, and numbered 27748, 1885, Joseph A. Cox, of Denmark, Oreg., requested to be furnished with a copy of evidence in the case. Registered volume 36, page 236. This letter was answered May 7, 1885, recorded volume 67, page 198, miscellaneous record, and filed with case as docket No. 23.

By letter of April 26, 1885, register returned contest papers, received in this office May 11, 1885, numbered 51523, and registered vol. 40, p. 76.

May 26, 1886, a letter was written by Miss Torrey cancelling the homestead entry of Duffy, and allowing Shoemaker's cash entry to stand. Mr. Mullen was advised same date. The cancellation of the homestead entry was noted on the credit-book and the tract-book, and the homestead entry returned to the files of the public lands division. The recommendation of this division for patenting the cash entry was noted thereon May 26, 1886, and the same is now in the board of review awaiting final examination.

The contested case was closed and placed in the "special files."

On August 9, 1886, Hon. W. R. Morrison, House of Representatives, filed certain papers and asked a just decision. His letter was received August 10, 1886, numbered 85258, registered vol. 40, p. 436, and filed with case as Doe. No. 25. In answer to this Mr. B. F. Crawshaw prepared a letter advising Mr. Morrison that there was nothing to warrant a change in the decision rendered. This letter is recorded vol. 72, p. 273, miscellaneous record.

On August 3, 1886, Hon. J. H. Mitchell inclosed an inquiry for Mr. Duffy, No. 83617. Referred to division C (public lands) and then to this division, where it was received August 8, 1886, registered in vol. 40, p. 453, filed with case as Doe. No. 26, and answered by Mr. Crawshaw August 19, 1886, by inclosing a copy of the letter addressed to Mr. Morrison. This letter is recorded in vol. 72, p. 295.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the pre-emption division of the General Land Office, Department of the Interior:

Character of business.	Pending July 1, 1883.	Received during 1884.	Disposed of in 1884.	Pending July 1, 1884.	Received during 1885.	Disposed of in 1885.	Pending close of 1885.
Ex parte cash entries.....	12,542	17,830	11,012	19,360	33,914	15,547	37,727
Contested cases.....	515	475	352	638	548	727	459
Official letters received.....	9,984	.....	.....	12,064	.....	.....	.....
Official letters written.....	.....	.....	.....	.....	.....	.....	.....
Pages recorded.....	.....	.....	.....	.....	.....	.....	.....
Pages copied (not recorded).....	.....	.....	.....	.....	.....	.....	.....
Town-site entries.....	41	13	28	26	16	14	38
Town-lot entries.....	.....	399	38	361	566	599	326
Town-site contests.....	.....	10	10	.....	17	7	10

Character of business.	Pending July 1, 1885.	Received during 1886.	Disposed of in 1886.	Pending July 1, 1886.	Received during 1886-'87.	Disposed of in 1886-'87.	Pending Mar. 1, 1887.
Ex parte cash entries.....	37,727	19,390	14,408	40,622	18,230	10,030	45,122
Contested cases.....	459	435	750	144	297	386	55
Official letters received.....	15,300	.....	.....	.....	.....	.....	.....
Official letters written.....	13,139	.....	.....	.....	.....	.....	.....
Pages recorded.....	10,773	.....	.....	.....	.....	.....	.....
Pages copied (not recorded).....	3,140	.....	.....	.....	.....	.....	.....
Appeals sent to Secretary.....	.....	.....	.....	.....	.....	.....	.....
Appeals returned from Secretary.....	.....	.....	.....	.....	.....	.....	.....
Cases closed without appeal.....	.....	.....	.....	.....	.....	.....	.....
Town-site entries.....	38	19	11	46	16	15	47
Town-lot entries.....	326	308	526	108	470	426	152
Town-site contests.....	10	25	27	8	3	7	4

All ex parte entries are jacketed, briefed, entered upon a credit book and after final disposition charged off of said book. "Letters written" includes answers to letters received as well as decisions in contested and ex parte cases.

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified by the employés in the pre-emption division of the General Land Office, Department of the Interior :

Character of business.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.												
Ex parte cases received...	1,029	1,181	1,504	1,365	1,464	1,679	2,882	2,508	2,579	1,281	2,541	2,839
Ex parte cases disposed of.	954	950	1,365	1,104	1,256	1,275	1,140	738	748	1,067	1,771	1,416
1885.												
Ex parte cases received...	3,673	1,323	2,222	3,536	2,398	2,444	1,958	1,350	2,560	2,271	2,065	1,916
Ex parte cases disposed of	2,586	1,163	1,253	1,530	1,447	1,619	1,924	1,625	1,057	1,366	1,467	1,042
1886.												
Ex parte cases received...	1,538	1,790	1,807	1,593	1,501	1,155	1,474	1,199	3,838	3,111	2,916	1,054
Ex parte cases disposed of.	1,246	857	1,103	1,144	786	698	595	550	772	997	418	573
1887 (to March 1).												
Ex parte cases received...	2,561	2,455	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ex parte cases disposed of.	1,042	487	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

No detailed statement by months has been kept of the other classes of work in this division.

The following statement shows the average number of employés in the pre-emption division of the General Land Office, Department of the Interior, during the periods specified :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	17	18	18	19	19	18	22	25	25	25	25	25
1885.....	25	24	23	22	22	22	23	24	26	25	25	27
1886.....	26	26	29	29	26	26	26	27	27	28	30	29
1887 (to March 1)	30	31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

No statement of the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified in the pre-emption division of the General Land Office, Department of the Interior, can be given. Owing to the varied and technical character of the work of this division the comparison cannot be made, even between two clerks on apparently the same class of work.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business, during the periods specified, by the employés in the pre-emption division of the General Land Office, Department of the Interior :

Year.	No. of employés.	Average No. of days present.	Average No. of hours employed daily.	No. by proxy.	Possible No. of days.	Average No. of days lost.
1884.....	21.25	272.19	7	0	307	34.81
1885.....	24.83	269.26	7	0	301½	32.24
1886.....	27.33	272.50	7	0	305	32.50
1887 (to March 1)	30.75	45.26	7	0	48	2.74

The official day is from 9 a. m. to 4 p. m. (7 hours), thirty minutes; from 12 to 12.30 is allowed for lunch, which is very generally availed of by the employés; this would bring the average hours of attendance to not exceed 6½ hours per day.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the pre-emption division of the General Land Office, Department of the Interior, during the periods specified :

	1884.	1885.	1886.	1887. (to March 1).
Maximum No. of days.....	281 $\frac{25}{28}$	273 $\frac{7}{28}$	279 $\frac{13}{28}$	488
Minimum No. of days.....	234 $\frac{1}{7}$	217 $\frac{1}{2}$	183 $\frac{9}{8}$	13 $\frac{1}{2}$

SWAMP-LAND DIVISION (K).

Report of the swamp-land division, General Land Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

The swamp-land division (designated by the initial K) is charged with the adjustment of the claims arising under the acts of Congress by which grants of the swamp and overflowed lands within their respective limits have been made to fifteen of the public land States, and under the acts supplemental thereto.

The principal items of business transacted are :

(1) Reception, examination, and placing of record of the lists of lands selected and reported as inuring to said States under the several granting acts.

(2) Determining from the evidence forming the basis of adjustment of these claims, and from an examination of the records, which of the tracts so selected and reported pass to the States under the grants; preparation of lists of such tracts for approval by the Secretary of the Interior, and issuing and recording patents for the same to the proper State.

(3) Adjustment of claims of the States to the indemnity provided by law for swamp and overflowed lands sold by the United States or located with warrants or scrip.

(4) Deciding conflicts which arise between claims under other laws or grants, and claims under the swamp-land acts.

(5) Preparation, recording, indexing, and care of correspondence, decisions, papers, records, and other matters relating to claims arising under said acts.

The acts of Congress relating to swamp and overflowed lands are :

March 2, 1849, U. S. Stats., Vol. 9, p. 252.

September 28, 1850, U. S. Stats., Vol. 9, p. 519.

March 2, 1855, U. S. Stats., Vol. 10, p. 634.

March 3, 1857, U. S. Stats., Vol. 11, p. 251.

March 12, 1860, U. S. Stats., Vol. 12, p. 3.

July 23, 1866, U. S. Stats., Vol. 14, p. 218 (secs. 4 and 5),

March 5, 1872, U. S. Stats., Vol. 17, p. 37.

December 27, 1872, U. S. Stats., Vol. 17, p. 404.

June 23, 1874, U. S. Stats., Vol. 18, p. 282.

February 23, 1875, U. S. Stats., Vol. 19, p. 334.

March 3, 1877, U. S. Stats., Vol. 19, p. 395.

June 9, 1880, U. S. Stats., Vol. 21, p. 171.

Statement showing in detail the methods of transacting business in the swamp-land (K) division of the General Land Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the General Land Office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

Sample item.—Swamp-land list, act of 1850.

June 13, 1885, William W. Hicks, U. S. surveyor-general for the district of Florida, transmits list No. 31 of swamp-land selections made by John A. Henderson, agent of the State of Florida, under act of September 28, 1850. Said letter and list upon receipt by the chief clerk of the General Land Office were sent to the registering room, where the letter was registered, the date of receipt (June 18, 1885) and the number, 61,083, stamped thereon. The list was marked 1885—61,083—1, to indicate that it was received with the letter, and both papers were referred to division K, where, after examination by the chief of the division, and being assigned by him to Henry A. Wind, they were handed to Miss R. C. Levy, who, after entering the number and date of the letter, name of writer, brief of the contents, dates of receipt in the office and the division, respectively, and name of clerk to whom assigned in the register of letters received in the swamp-land division, Vol. 6, p. 34, delivered the papers to said clerk. Mr. Wind filed the letter among the letters received touching lands in Florida, noted this filing on the register of letters received, and transferred the list to George H. Phillips, posting clerk, by whom the descriptions of the tracts of land embraced therein, amounting to 98,625.27 acres, number of list and date of surveyor-general's report of same, were recorded in the records of Florida swamp-land selections, Vol. 14, pages 1 to 22, inclusive. The record was duly compared and indexed by townships and ranges, and the list returned to the clerk to whom it was originally assigned by the chief of the division.

Mr. Wind prepared a letter addressed to J. W. Childs, a special agent of this office then in Florida, transmitting a copy of said list made in the division, and directing him to make an examination in the field of the tracts of land described therein, and to report to this office the character of each smallest legal subdivision thereof as found by him on such examination, in accordance with instructions theretofore given him. This letter, after being examined by the chief of the division and the examiners of decisions, and signed by Hon. William Walker, Acting Commissioner, August 13, 1885, was press-copied in Vol. 50, (division K, and forwarded (with the copy of the list) by mail to Special Agent Childs at Palatka, Fla. This letter was duly recorded in the division record of letters, Vol. 53.

The original list was sent to the division of public lands (C) to have the claim of the State to said land posted on the tract-books of the office. This work was completed and the list returned, with a statement to that effect, August 29, 1885. The posting clerk in division C also noted such conflicting claims as were on the tract-books. With letter dated August 29, 1885, Special Agent Childs submitted a detailed report showing the character of each tract of the land in the list, as found by him from examination in the field, and his letter and report went through the same process of registry and assignment heretofore described, being numbered 87,818.*

Another list embracing 78,694.57 acres of land described in the original list, which had been reported swamp and overflowed land by the special agent, and for which no adverse claims were found upon further examination of the records of the office, was prepared by the clerk in charge of the original list. To this new list, designated as No. 38 "of swamp and overflowed lands selected as inuring to the State of Florida under the provisions of the act of Congress approved September 28, 1850, section 2479, Revised Statutes, in the district of lands subject to sale at Gainesville, formerly at Tampa, Fla.," was attached the certificate of Mr. Wind, dated September 26, 1885, countersigned by the chief of the division, reciting that the tracts described therein had been duly selected and reported to this office as swamp land inuring to said State under the act of 1850; that Special Agent Childs had reported that he had made a personal examination thereof, and that they are swamp and overflowed land; and that from an examination of the tract-books of this office said land appears to be free from conflict by sale or otherwise. Following this is the recommendation of William A. J. Sparks, Commissioner of the General Land Office, to the Hon. Secretary of the Interior, dated October 5, 1885, for the approval of the list. On the same day the honorable Commissioner signed a letter to the Secretary of the Interior, prepared by Mr. Wind and examined as before stated, repeating the statements and the recommendation for approval of said list above recited. This letter, after being press-copied and properly briefed, was, with the list referred to, sent by messenger to the chief clerk of the Interior Department. The letter was duly recorded in the division records as before mentioned. The letter and list were duly numbered and registered in the division of lands and railroads in the Department of the Interior, where the letter remains on file. After examination by Arthur Martin, clerk, and J. McMurray, chief of said division, said list No. 38 was, on October 7, 1885, approved "subject to any valid adverse rights that may exist to any of the lands therein described," by Hon. H. L. Muldrow, Acting Secretary of the Interior, and returned to this office, where it was registered, referred, and assigned the same as the papers before mentioned. The approval by the Secretary, with date thereof and number of the list, were noted opposite the tracts included in this approved list, on the swamp-land selection records of the division, the work being completed October 15, 1885, by Mr. Wind. Two copies prepared in the division and certified by the Commissioner October 19, 1885, were forwarded by mail with the Commissioner's letters of same date to the governor of Florida and register and receiver of the United States land office at Gainesville, Fla. The governor was requested to acknowledge receipt of the copy sent him and to transmit his request for the issue of patent to the State for the lands. The register and receiver were directed to enter the tracts described in the copy of the list sent them in their tract-books and township plats, and report at once to this office whether or not the same were free from conflict by sale or otherwise. These letters were prepared, press-copied, and recorded in the division. The approved list was sent to division "C" where, on October 28, 1885, the work of noting the approval opposite the lands in the tract-books was completed, after which said list was returned to this division.

By letter dated October 23, 1885, Hon. E. A. Perry, governor of Florida, acknowledged receipt of the certified copy sent him as above, and asked that patent issue to the State for the land described therein. This letter was received October 26, 1885, was registered, numbered, assigned, noted, and filed as in case of those heretofore mentioned.

By letter dated October 26, 1885, received on the 29th of the same month, the register and receiver at Gainesville reported that they had entered the tracts described in the copy of the list sent them, as above, on their records, and that they found the same free from conflict by sale or otherwise, with certain specified exceptions. After registry, reference, and assignment in the regular way this letter was duly noted and filed by the clerk in charge of the list.

A patent to the State embracing the tracts of land in said approved list No. 38, to which no other claims appeared of record here or in the local office, amounting to 74,936.94 acres, was prepared by Mr. Wind and submitted for the signatures of the President's secretary to sign land patents and the recorder of the General Land Office, with letters (also prepared, examined, press-copied, and recorded as in cases previously noted) signed by the Commissioner November 9, 1885. This patent, numbered 41, and dated November 9, 1885, was signed as requested, and returned to this division by — messenger from the recorder of the General Land Office.

Notes showing the number and date of said patent were then made opposite each of the tracts embraced therein on the record of swamp-land selections, the patent was recorded in Vol. 1 of the record of swamp lands patented to the State of Florida, pages 171 to 185, inclusive, in this division, and the record duly compared and indexed. As soon as this work was completed, a letter transmitting said patent to the governor of Florida was prepared by Mr. Wind, examined as before mentioned, signed by the Commissioner November 14, 1885, and after being press-copied was forwarded (with the patent) by mail. This letter was also recorded the same as those heretofore mentioned.

Receipt of said patent was acknowledged by the governor of Florida in his letter to the Commissioner, dated November 18, 1885, which, after the regular routine of registry and reference, was noted and placed on file with the other letters relating to swamp lands in said State.

A detailed statement of the steps necessary in the adjustment of a claim for indemnity for swamp lands, whether in money or other land, would require more space than is given the foregoing claim for lands in place, while the details of an ordinary contested swamp-land case would occupy about one-half that space.

NOTE.—As a result of this examination and report, the claim of the State to nearly 11,000 acres embraced in the original list of selections, found not to be swamp or overflowed land, has been rejected and the land restored to settlement and entry under the pre-emption and homestead laws.

* See note at the end of this statement.

Statement showing the amount and character of business received, transacted, and disposed of during the period, and on hand, pending and undisposed of, at the dates specified below in the swamp-land division of the General Land Office, Department of the Interior.

Up to January 1, 1884, the amount of lands claimed under the swamp-land grants was 71,588,756.45 acres, of which 54,508,517.35 acres had been patented to the several States, the remainder being made up of duplicate selections, lands disposed of to individuals or under other grants, lands for which indemnity has been allowed, or is claimed, or lands for which the claims of the States have been rejected.

The actual amount of land for which claims remain to be adjusted, or for which indemnity may be claimed at any particular date, cannot be stated.

Since January 1, 1884, up to March 1, 1887, the selections received and the amounts patented to the States during the calendar years are as follows:

Year.	Selected.	Patented.
	<i>Acres.</i>	<i>Acres.</i>
1884.....	1, 113, 761. 19	1, 422, 259. 77
1885.....	2, 740, 256. 92	693, 936. 23
1886.....	1, 840, 444. 34	67, 707. 42
1887.....	23, 740. 28	1, 699. 46

Up to January 1, 1884, indemnity for swamp lands had been allowed as follows: In money, \$1,252,403.01; in land, 601,217.92 acres. Since that date to March 1, 1887, the allowance made of indemnity by calendar years is—

Year.	In money.	In land.
		<i>Acres.</i>
1884.....	\$72, 058 92	26, 438. 79
1885.....	53, 777 69	52, 965. 23
1886.....	101, 763 89	43, 945. 17
1887.....	10, 207 14	538. 19

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified by the employes in the swamp-land division of the General Land Office, Department of the Interior:

Character of business.	Average amount transacted during each month.											
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.												
Letters received.....	178	182	144	172	163	127	151	178	154	145	141	179
Letters written.....	187	159	126	127	110	128	146	99	170	173	148	218
Pages of letter record covered.....	146	123	94	100	78	97	123	72	144	136	108	160
Lists prepared for approval.....	3	4	4	11	6	5	4	1	6	9	4	11
Certified copies of lists prepared by the governors of States and local land officers.....	6	8	7	22	12	10	8	2	12	17	8	21
Patents executed.....	2	2	4	5	5	5	3	2	7	6	9	9
Pages of patent record covered.....	10	2	4	21	8½	6½	7	7	7	23	29	35
Tracts upon which claims for indemnity have been adjusted.....	106	113	174	587	297	554	476	....	273	186	159	.....
Number of contested cases decided.....	18	8	4	10	7	12	14	12	15	18	17	9
Entries and locations held for cancellation for conflict with claims under swamp grant.....	7	3	1	3	3	2	.....	.....	2	4	5	53
Certified copies prepared for individuals.....	3	5	.....	.....	3	5	2	1	3	3	.....	5
Claims under railroad grant held for rejection for conflict with claims under swamp grant.....	.....	.....	1	.....	.....	.....	8	.....	.....	.....	.....	.....

Character of business.	Average amount transacted during each month.											
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.												
Claims under swamp grant held for rejection	9	1	4	2	4	3	7	7	1	6	4	10
Hearings ordered to determine the character of land	16	8	5	1	3	4	4	6	15	6	12	22
Swamp land indemnity certificates issued	.....	2	2	4	4	2	3	.....	.....	2	.....	1
1885.												
Letters received	151	180	186	207	185	202	181	204	174	205	174	200
Letters written	166	122	193	139	219	179	228	164	110	227	131	130
Pages of letter record covered	138	92	134	114	189	141	160	140	88	178	118	104
Lists prepared for approval	2	8	10	1	4	4	3	5	1	1	1	1
Certified copies of lists prepared for governors of States and local land officers	4	16	20	2	8	8	6	10	2	2	2	2
Patents executed	5	3	14	4	3	6	7	6	7	6	5	3
Pages of patent record covered	24	9½	27	4	8	7	40½	7½	11	16½	21	5
Tracts upon which claims for indemnity have been adjusted	14	617	710	.....	132	132	262	129	.....	311	32	.....
Number of contested cases decided	25	7	19	15	50	29	39	27	22	42	17	16
Entries and locations held for cancellation for conflict with claims under swamp grant	18	2	8	2	10	2	7	5	6	14	7	1
Certified copies prepared for individuals	.....	1	.....	2	1	2	4	.....	1	1	.....	.....
Claims under railroad grant held for rejection for conflict with claims under swamp grant	.....	.....	2	1	2	.....	.....	1	.....	.....	.....	1
Claims under the swamp grant held for rejection	5	2	5	2	12	7	15	12	2	19	1	6
Hearings ordered to determine character of lands	9	6	7	16	27	13	14	8	11	65	51	21
Swamp-land indemnity certificates issued	.....	2	1	.....	1	2	3	2	.....	2	3	.....
1886.												
Letters received	232	220	224	297	217	260	205	197	198	221	222	218
Letters written	156	184	151	186	263	274	164	158	189	188	177	221
Pages of letter record covered	138	156	208	167	210	226	155	144	156	178	84	154
Lists prepared for approval	5	.....	2	3	7	2	1	1	2	0	2	1
Certified copies of lists prepared for governors of States and local land officers	10	.....	4	6	14	4	2	2	4	.....	4	2
Patents executed	.....	.....	7	2	10	11	1	.....	3	.....	1	6
Pages of patent record covered	.....	.....	12½	5	17	12	2	.....	4	.....	1	13½
Tracts upon which claims for indemnity have been adjusted	43	509	316	1,006	416	493	413	325	23	142	147	55
Number of contested cases decided	38	33	38	76	26	41	19	32	28	34	32	57
Entries and locations held for cancellation for conflict with claims under swamp grant	1	.....	2	2	1	3	1	2	1	3	11	.....
Certified copies prepared for individuals	2	.....	.....	6	1	.....	1	.....	1	2	.....	1
Claims under railroad grant held for rejection for conflict with claims under swamp grant	1	2	3	1	.....	.....	.....	.....	.....	.....	.....	.....
Claims under swamp grant held for rejection	7	10	16	2	9	20	24	15	10	20	17	11

Character of business.	Average amount transacted during each month.											
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1886.												
Hearings ordered to determine character of land	18	14	90	9	14	27	21	18	17	14	41	7
Swamp-land indemnity certificates issued.....	2	4	1	7	6	8	4	4	1	1	4	2
1887.												
Letters received	228	171										
Letters written	153	175										
Pages of letter record covered	136	158										
Lists prepared for approval		5										
Certified copies of lists prepared for governors of States and local land officers		9										
Patents executed	1	3										
Pages of patent record covered	2	3										
Number of contested cases decided	27	15										
Tracts upon which claims for indemnity have been adjusted	156	76										
Entries and locations held for cancellation for conflict with claim under swamp grant	1	2										
Certified copies prepared for individuals	1	1										
Claims under railroad grant held for rejection for conflict with claims under swamp grant												
Claims under swamp grant held for rejection	27	14										
Hearings ordered to determine character of land	18	7										
Swamp-land indemnity certificates issued.....	1											

The following is a summary of the more important work done in the swamp-land division of the General Land Office, Department of the Interior, during the years named :

Character of business.	1884.	1885.	1886.	Jan. and Feb. of 1887.
Letters received.....	1,914	2,249	2,711	399
Letters written.....	1,791	2,008	2,311	328
Pages of letter record covered.....	1,381	1,596	1,976	294
Lists prepared for approval	68	41	26	5
Certified copies of lists prepared and transmitted to the governors of the several States and land offices	133	82	52	9
Patents executed.....	59	69	41	4
Pages of patent record covered	160	181	67	5
Tracts upon which claims for indemnity have been adjusted	2,925	2,539	3,888	232
Number of contested cases decided.....	144	308	454	42
Entries and locations held for cancellation for conflicts with claims under the swamp grant.....	83	82	27	3
Certified copies prepared for individuals	30	12	14	2
Claims under railroad grant held for rejection for conflict with claims under the swamp grant.....	9	7	7	
Claims under swamp grant held for rejection	58	88	161	41
Hearing ordered to determine the character of land	102	248	290	25
Swamp land indemnity certificates issued.....	20	16	44	1

The following statement shows the average number of employés in the swamp-land division of the General Land Office, Department of the Interior, during the periods specified :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	8	8	8	8	8	8	7	7	7	7	8	8
1885.....	8	8	8	9	9	9	9	9	9	9	9	9
1886.....	9	9	8	8	9	10	10	10	10	10	10	10
1887 (to Mar. 1).....	10	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

No record of the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least has been kept. In a general way an individual work list has been kept, but more as an index to the nature of the work performed than to the quantity. Comparisons cannot be made between the work of two clerks, inasmuch as no two clerks in this division are engaged on the same work.

The following statement shows the average number of days and the time and attention devoted to adjusting the swamp-land grants of March 2, 1849, September 28, 1850, and March 12, 1860, during the periods specified, by the employés in the swamp-land division of the General Land Office, Department of the Interior :

Year.	Number of employés.	Average number of days present.	Average number of hours employed daily.	Number of working days.	Average days absent.
1884.....	8	274.75	7	307	32 $\frac{1}{4}$
1885.....	9	273.28	7	301 $\frac{1}{2}$	28 $\frac{1}{50}$
1886.....	10	273.60	7	305	31 $\frac{8}{25}$
1887 (to March 1).....	10	45.50	7	48	2 $\frac{1}{2}$

The official day is from 9 a. m. to 4 p. m. (seven hours), but thirty minutes at noon is allowed employés for lunch, which is almost universally availed of, thus making the hours of actual daily attendance six and one-half hours.

The following statement shows the maximum number of days devoted to adjusting swamp-land claims by the employé present for the greatest number of days, and also the minimum number of days by the employé present for the least number of days in the swamp-land division of the General Land Office, Department of the Interior, during the periods specified :

	1884.	1885.	1887.	1887 (to March 1).
Maximum number of days.....	279.94	282.43	280.00	48
Minimum number of days.....	258.95	257.48	264.95	37

DRAUGHTING DIVISION.

Report of the draughting division, General Land Office, on the methods of business and work as requested by Senate Select Committee, and called for by Department circular of March 23, 1877.

In this division is performed all the general draughting required by the General Land Office. It consists of the platting of all surveys of public lands; the recomputation of areas consequent upon the relotting of accretions and detrition. It has the custody of all official plats and maps of survey and field notes relating thereto. Maps of the United States and the various land States and Territories are compiled in this division from official surveys for publication. Copies of maps and plats are prepared for individuals upon payment of the proper legal fee therefor, and where the plats of local land offices become so worn and defaced as to be useless, tracings from the originals are made to be furnished to the contractors for reproducing such plats by photolithography.

As the plats of survey of public lands are received and approved the same are placed upon a working diagram of the State or Territory in which the same are located for,

current use. Upon the receipt of maps filed by railroad companies showing location of route, they are compared with the official plats to determine their accuracy, and whether the laws have been complied with, and to ascertain if there is any conflict with the privileges granted or inchoate claims. Thereupon the proper boundaries of location are indicated and maps sent to the various local land offices for their guidance in receiving applications for lands. Maps of private land grants of every description are here compiled from the records of survey, that the same may be properly adjusted and the interests of the Government protected.

Statement showing in detail the methods of transacting business in the draughting division of the General Land Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the General Land Office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

Take as an illustration the construction of a map of a State or Territory :

First, the geographical extent of the State or Territory is examined ; after which a convenient scale is decided upon, usually 8 or 10 miles to an inch, but varying according to the greater or less extent of the area. A polyconic projection is then computed and verified ; after which measurements for the projection which forms the base for the map are laid upon a sheet of paper and tested. The next step is to draw upon the projection the townships and ranges by the measurements as they appear of record on the official plats. After which the topographical features, streams, swamps, towns, mountain ranges, &c., are shown upon the map in complete detail as delineated upon the official records. In cases where the boundaries (particularly in the Western States and Territories) are not indicated with sufficient clearness upon the detached surveys in the General Land Office, reference is made to the astronomical surveys of the proper various scientific departments of the Government for aid, and usually the very excellent determinations of the United States Coast Survey are availed of for coast lines. Additional detail is obtained from other authentic sources. Such a map in manuscript is kept in the General Land Office and used as the working diagram referred to in sheet B. It is then accurately traced, made full and complete and the tracings examined ; and when verified it is sent to a successful bidder for such work, who makes the ordered reduction by photolithography, generally issuing the map on a scale of from 12 to 15 miles per inch, and in such quantities as may be ordered, after proofs have been forwarded here and corrected.

When the maps are received they are counted and the execution examined to see whether the number specified have been sent, and whether the grade of paper and workmanship are equal to the terms of the contract. If so, the maps are accepted and ready for distribution.

Take a railroad map sent by an incorporated railroad company for file and privileges under Congressional enactment :

It is referred to the draughting division for examination and report. The sections, townships, and ranges and topography as shown upon the company's map are compared with the corresponding plats of surveys on file in the draughting division. Then are noted whether connections with corners of public surveys (that is, at what distance from them) are made and properly indicated upon the map ; how said road crosses standard parallels and guide meridians ; when and how, if at all, the route crosses military or Indian reservations. Whether the route passes over the route of a rival company, which has had privileges earlier granted it. Then the location of the stations is examined to learn whether the same are the required 10 miles apart. The area of said station grounds is computed to determine whether there be an excess of 20 acres permitted by the Government. After having proved that all these statutory requirements have been met in good faith and the route been proved to agree with official records on file in the draughting division of the General Land Office, or whether the contrary is a fact, the report is made accordingly. The route is then platted upon a diagram kept for that purpose and for reference in draughting division. Then the map, with the report, is sent to the railroad division, where it is finally disposed of.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the draughting division of the General Land Office, Department of the Interior :

Character of business.	Amount pending on Jan. 1, 1884.	Amount received during calendar year 1884.	Amount transacted and disposed of during calendar year 1884.	Amount received during calendar year 1885.	Amount transacted and disposed of during calendar year 1885.	Amount received during calendar year 1886.	Amount transacted and disposed of during calendar year 1886.	Amount received during calendar year 1887, ending March 1.	Amount transacted and disposed of during calendar year 1887, ending March 1.	Amount on hand, pending, and undisposed of at close of the calendar year 1887, ending March 1.
Maps of Railroads examined and reported, on.....	35	177	212	62	62	504	504	97	96	1
Maps of Railroads examined for designation of land districts....	3	146	149	41	41	350	350	53	53	.....
Copies of Railroad maps.....	2	32	34	59	59	102	102	19	19	.....
Maps of private claims furnished.	1	118	119	50	50	56	56	7	6	1
Miscellaneous drawings, &c.....	10	250	260	278	278	575	575	115	115	.....
Maps of land grants to railroads made.....	4	68	72	82	82	66	66	7	7	.....
Copies of township surveys made	0	184	184	195	195	207	207	6	6	.....
Maps of Indian reservations made.	0	28	28	5	5	60	60	2	2	.....
Maps of military reservations made.....	0	10	10	32	32	18	18	4	4	.....
Volumes of field-notes prepared for binding.....	0	55	55	317	317	213	213	75	75	.....
Volumes township plats prepared for binding.....	0	64	64	58	58	112	112	4	4	.....
Miscellaneous maps constructed..	0	51	51	40	40	71	71	10	10	.....
Township plats classified and filed.....						130,000	130,000	0	0	.....
Tracings for reproduction of worn records verified.....						1,102	1,102	77	77	.....
Plats of surveys furnished applicants.....	1	1,841	1,842	986	986	972	972	392	392	.....
Tracings of defaced and worn records for reproduction, made and verified.....						169	169	77	77	.....
State and Territorial maps compiled and traced for photolithography.....	0	6	6	7	7	7	7	1	1	.....
Revision of United States map....	0	1	1	1	1	1	1			.....
Plats examined and colored.....						830	830	50	50	.....

NOTE.—During the month of January and February 1887, 5 State and Territorial maps were being compiled and prepared for publication, but not completed on March 1.

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employés in the draughting division of the General Land Office, Department of the Interior :

Character of business.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.												
Maps of railroads examined and reported on...	70	4	45	8	0	11	26	0	20	13	15	0
Maps of railroads examined for designation of land districts.....	32	3	14	37	3	5	15	17	0	6	5	12
Copies of railroad maps.....	2	6	4	7	2	3	2	0	0	0	3	5
Maps of private claims furnished.....	7	14	29	11	13	3	5	22	5	4	1	5
Miscellaneous drawings, &c.....	98	36	18	19	15	13	10	8	8	5	19	11
Maps of land grants to railroads made.....	13	3	9	0	2	4	5	18	1	10	0	7
Copies of township surveys made.....	3	28	30	6	5	58	6	21	16	0	3	8
Maps of Indian reservations made.....	2	1	0	10	1	4	3	5	2	0	0	0

Character of business.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.												
Maps of military reservations made.....	0	1	1	0	1	3	1	0	1	0	0	2
Volumes of field-notes prepared for binding...	0	0	0	55	0	0	0	0	0	0	0	0
Volumes of township plats prepared for binding.....	0	25	39	0	0	0	0	0	0	0	0	0
Miscellaneous maps constructed.....	1	0	2	7	2	3	10	4	7	1	14	0
Township plats classified and filed.....												
Tracings for reproduction of worn records verified*.....												
Plats of surveys furnished applicants.....	186	213	455	2	2	88	8	30	504	348	2	4
Tracings of defaced and worn records for reproduction, made and verified*.....												
State and Territorial maps compiled and traced for photolithography.....	0	1	0	0	1	0	1	0	1	1	0	1
Revision of United States map.....	0	0	0	0	0	0	0	1	0	0	0	0
1885.												
Maps of railroads examined and reported on...	0	0	0	8	14	0	15	8	9	0	8	0
Maps of railroads examined for designation of land districts.....	4	0	3	7	7	0	11	4	5	0	0	0
Copies of railroad maps..	4	7	5	0	5	4	3	7	3	16	1	4
Maps of private claims furnished.....	4	12	8	2	3	0	4	3	5	6	1	2
Miscellaneous drawings, &c.....	14	6	9	34	38	15	21	3	35	72	21	10
Maps of land grants to railroads made.....	4	5	4	18	1	3	6	3	15	11	8	4
Copies of township surveys made.....	12	15	10	15	6	47	14	26	4	25	7	14
Maps of Indian reservations made.....	2	0	0	0	0	0	0	2	0	1	0	0
Maps of military reservations made.....	1	2	4	12	8	2	0	1	0	0	2	0
Volumes of field notes prepared for binding...	66	0	46	0	77	73	55	0	0	0	0	0
Volumes of township plats prepared for binding.....	0	0	0	38	0	20	0	0	0	0	0	0
Miscellaneous maps constructed.....	7	2	1	2	14	13	0	1	0	0	0	0
Township plats classified and filed.....												
Tracings for reproduction of worn records verified*.....												
Plats of surveys furnished applicants.....	0	73	27	481	7	5	34	2	319	24	0	14
Tracings of defaced and worn records for reproduction made and verified*.....												
State and Territorial maps compiled and traced for photolithography.....	0	1	0	1	1	0	0	1	0	1	1	1
Manuscript United States map compared...	0	0	0	0	0	0	0	0	0	1	0	0
1886.												
Maps of railroads examined and reported on...	52	42	40	26	22	33	53	36	44	22	64	70
Maps of railroads examined for designation of land districts.....	53	16	62	21	8	9	26	6	42	38	29	40
Copies of railroad maps..	4	16	17	6	3	16	6	5	7	8	4	10
Maps of private claims furnished.....	5	6	13	5	1	1	0	6	7	5	2	5
Miscellaneous drawings, &c.....	40	68	193	18	14	84	6	55	21	2	6	63

* No record.

Character of business.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1886.												
Maps of land grants to railroads made.....	9	7	21	7	3	7	6	2	0	1	0	3
Copies of township surveys made	19	17	12	32	30	10	16	22	7	26	8	8
Maps of Indian reservations made.....	1	0	2	52	1	0	0	0	0	1	0	3
Maps of military reservations made	1	2	2	0	2	1	1	1	1	0	0	7
Volumes of field-notes prepared for binding ..	47	0	53	0	0	0	0	0	113	0	0	0
Volumes of township plats prepared for binding	0	0	3	15	10	0	35	0	48	0	0	1
Miscellaneous maps constructed	7	8	5	10	6	4	9	2	8	5	6	1
Township plats classified and filed.....	0	0	0	0	0	23,000	29,000	20,000	32,000	26,000	0	0
Tracings for reproduction of worn records verified	0	195	245	180	260	222	0	0	0	0	0	0
Plats of surveys furnished applicants.....	42	143	10	200	3	20	50	5	80	201	150	68
Tracings of defaced and worn records for reproduction made and verified	0	31	0	0	0	0	0	0	0	33	60	45
State and Territorial maps compiled and traced for photolithography	1	0	0	1	1	0	1	0	0	1	1	1
Revision of United States map	0	0	0	0	0	0	0	0	1	0	0	0
Plats examined and colored	69	75	72	81	45	73	81	45	72	69	75	73
1887.												
Maps of railroads examined and reported on ..	34	63	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Maps of railroads examined for designation of land districts	32	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Copies of railroad maps ..	2	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Maps of private claims furnished	2	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous drawings, &c.....	72	43	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Maps of land grants to railroads made	7	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Copies of township surveys made	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Maps of Indian reservations made.....	2	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Maps of military reservations made	1	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Volumes of field-notes prepared for binding ..	0	75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Volumes of township plats prepared for binding	0	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous maps constructed	0	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Township plats classified and filed.....	0	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tracings for reproduction of worn records verified	25	52	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Plats of surveys furnished applicants.....	170	222	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tracings of defaced and worn records for reproduction made and verified	31	46	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
State and Territorial maps compiled and traced for photolithography	0	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Plats examined and colored	23	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—During the months of January and February five State and Territorial maps were being compiled and prepared for publication, but not completed on March 1.

The following statement shows the average number of employés in the draughting division of the General Land Office, Department of the Interior, during the periods specified:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	12.38	12	12	12	12	12	12	13	14	14	15	15
1885.....	15.69	16	16.08	16	16	16	16.54	17	16.80	17	16.54	16
1886.....	16.36	16	16	16	15.88	14.61	14	14	14	14	13.87	14
1887 (to March 1).....	14	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

There is no means of accurately determining the maximum and minimum amount of business transacted and disposed of by employés. Reference to "character of business" shows that the work is various, all pertaining, however, to drawings, maps, and calculations. No two or more clerks are engaged upon work identical in character, but record of work done by each is kept.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business, during the periods specified, by the employés in the draughting division of the General Land Office, Department of the Interior:

Year.	Number of employés.	Average number of days present.	Average number of hours employed daily.	Number by proxy.	Possible number of days.	Average number of days absent.
1884.....	12.94	267.23	7	.....	307	39.77
1885.....	16.30	266.78	7	.....	301½	34.72
1886.....	14.89	274.16	7	.....	305	30.84
1887 (to March 1).....	14	46.06	7	.....	48	1.94

The official day is from 9 a. m. to 4 p. m., but from 12 m. to 12.30 p. m. is allowed for lunch, which is almost universally availed of by the employés, thus reducing the average hours of attendance to not exceeding 6½.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days and also the minimum number of days devoted to business by the employé present for the least number of days in the draughting division of the General Land Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to March 1).
Maximum number of days.....	279.46	280.71	294.40	48
Minimum number of days.....	235.36	232.71	261.94	28.89

ACCOUNTS DIVISION.

Report of the accounts division of the General Land Office on the methods of business and work, as requested by Senate Select Committee and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the accounts division of the General Land Office, Department of the Interior.

Adjustment of accounts of receivers; of receivers, acting as disbursing agents; of receivers, timber depredations; surveyors-general; special agents; inspectors; deputy surveyors; custodians of abandoned military reservation; express companies, depot'g; for repayment purchase money; for transportation; for advertising; for furnishing maps; for law books, &c.; of State fund accounts.

- Record of all appropriations, and a ledger account with each.
- Advances of public funds.
- Receipt, examination, and distribution of every entry of the public lands, and docket of the same.
- Annual statement of disposals of the public lands.
- Estimates of appropriations.
- Balances of appropriations.
- Instructions relative to the disposal of the public land, miscellaneous work, and all statistics relative to the public lands.

Statement showing in detail the methods of transacting business in the accounts division of the General Land Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the office, and then showing, in consecutive order, the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

DUTIES OF, AND MANNER OF TRANSACTING BUSINESS BY, THE FILE CLERK.

Letters coming into the division from the mail room are delivered to the chief of the division. After an examination by him they are sent to the file clerk, who marks on each the name of the clerk by direction of the chief and assistant chief of division who is to take action on the subject-matter therein contained. The letters are then arranged in numerical order according to the General Land Office series of numbers; after the letters are so arranged they are entered in a "Record of letters received," giving number of letter, name and address of writer, date, and subject-matter; the number of volume and page is noted in left-hand corner for reference. The letters are then indexed under the proper head, giving name of writer, date, volume, and page of record. The number of each letter is placed upon duplicate mail cards, which are signed by the clerk to whom the same are referred.

After the case has been disposed of by the clerk he notes the action taken thereon and returns the letters to the file clerk, who receipts on the duplicate mail cards sent with the letters when referred.

If the letter is referred to another division it is noted in the record of "Letters received," and also entered in a transfer book kept for the purpose, and the receipt of the registering clerk taken. The action taken by the clerk, upon a letter, is entered upon the "Register of letters received."

When more than one name of person or land office appears in a letter, if at all material to the case, they are severally indexed, the writer's name in black ink, and the parties referred to in red. This separate entry is made for the purpose of more readily tracing any case that may inquired for.

The index is divided into four parts for letters from registers and receivers, surveyors-general, departmental, and miscellaneous. Letters from surveyors-general and registers and receivers and the several departments are indexed under the name of the office and miscellaneous letters under the names of the writers.

After letters have been acted upon by clerks and returned to the file clerk the file clerk receipts to them upon duplicate cards for return of letters, and they are filed in the proper places, as follows:

All letters are filed, according to date by calendar years, in the file designated as registers and receivers, surveyors-general, departmental, and miscellaneous.

When a letter is wanted from the files, the clerk needing it applies to the file clerk, who withdraws the letter, fills out a withdrawal card on which is entered the description of the letter by number, date, and name of writer, receipts the same, which is kept in the files until the letter is returned.

WEEKLY STATEMENTS.

All receivers of public moneys and surveyors-general acting as disbursing agents are required to render at the close of business of each week a statement showing the amount of money received and deposited, with the balances on hand. These statements are forwarded to the General Land Office, received at the registering room, referred to the division of accounts, received by the chief, and sent to the file clerk. They are entered by number and date in the book kept for that purpose, indorsed for reference by the Commissioner to the Treasurer of the United States, and when signed by the Commissioner are returned to this division. An account is kept of the number indorsed and signed, and they are then forwarded to the Treasury Department.

After comparison with the books of the Treasurer and indorsed by the Treasurer, they are returned to the General Land Office, received by the chief of the division of accounts, sent to the file clerk, who notes the date of return and files them away for future reference.

DESK OF "ADVANCES TO DISBURSING AGENTS."

Advances to disbursing agents are made as follows, viz :

Each receiver of public moneys, acting as disbursing agent, transmits quarterly a requisition, addressed to the Commissioner of the General Land Office, for funds, under the several appropriations, to meet the expenses of his office; the requisition is received by the mail clerk, who sends it to the chief of division "M" (accounts); thence it is sent, after examination, to the docket clerk to be registered: the latter hands it to the accountant in charge of the proper office, who compares it with the returns from such office, for the previous quarter; if the balances, if any exist, are correct, and the amounts requested are authorized by law, the accountant places the requisition in the hands of the "advance" clerk, who examines the request, proves the footings thereof, and makes out a requisition on the Secretary of the Interior, on a prepared blank, with stub, for the several amounts, under the proper official bond of the receiver. Retaining the stub the requisition, accompanied by a letter of instructions to the receiver, is handed to the accountant for initials, after which it is given to the book-keeper for entry, and by him sent to the chief and assistant chief of division for approval. From thence it goes to the Commissioner for his signature, and when returned to the chief of division M (accounts) is sent by him to the file clerk, the latter returns it to the advance clerk, who, after briefing the request, transmits it to the disbursing officer of the Department of the Interior.

The letter of instruction, after having received the approval of the chief of division and the signature of the Commissioner, is copied by the recording clerk of the division, and when returned to the writer is press copied and the original mailed to the receiver.

The request from the receiver is properly briefed and placed among the records of this office.

STATE-FUND ACCOUNTS DESK.

State-fund accounts are based upon the receiver's disbursing accounts and sales of public lands as adjusted, approved, and recorded in the General Land Office.

Examples:

Adjustment of Nebraska 5 per cent. fund account under the twelfth section of the act of Congress, April 19, 1864, Stat. L., vol. 13, p. 49.

1. There is prepared from the receiver's adjusted accounts a statement showing separately the amount received from sales of public and Indian lands and fees and commissions during each quarter, from July 1, 1882, to June 30, 1885, also number of each quarterly report and the total cash receipts, with the expenses of the sales thereof, consisting of amounts paid for salaries, contingent expenses, and expenses of depositing for each quarter during the period mentioned at each land office in the State of Nebraska.

From the tabular statement thus prepared separate statements by year and quarter are made of each office in Nebraska, showing number of report, amount received for each class of land, and from fees and commissions, for each item of expense to be prorated, and the nature of the expenditure.

I then state the terms of the proportion for computation of the pro rata share of expenses to be deducted from net proceeds of sales of public lands.

In each quarter there are three classes of expenditures to be prorated viz: Salaries, contingent expenses, and expense of depositing, involving several computations in each quarter.

3. Computing the proportionate share of expense.

4. After obtaining the proportionate share of each class of expenditure the account is then stated by the year and quarter on blanks (1-224a) prepared by this office, showing number, report, year, and quarter, cash sales of public lands, detailed statement of pro rata share of expenses, and net proceeds from sales of land during each quarter and the totals for entire year:

5. From statement on blank form 4-124 recapitulations are made of the sales of public lands at each office in the State for each year and quarter and the proportionate share of each class of expenses incident to the sales of said lands, together with the net proceeds thereof, showing the total sales of public lands, total pro rata share of expenses and net proceeds from sales of public lands during each year, from which is deducted repayments for lands erroneously sold during each fiscal year, as per certificate of the Register of the Treasury, on which balance the percentage is computed and shown.

The account is then stated for the last time, showing the balance due the State as per last report, the per centum on net amount derived as purchase-money during each fiscal year from July 1, 1882, to June 30, 1885, from the aggregate amount of which is deducted warrants on the Treasurer, showing balance due the State from the per centum accruing to the State of Nebraska upon the net proceeds of the sales of public lands within her limits.

7. The account is then submitted to chief of division M for approval.

8. From division of accounts this account is sent by chief of division to the law examiners, and after being passed on by them is sent to the Commissioner of the General Land Office for examination and approval.

9. After being approved by the Commissioner of the General Land Office it is returned to clerk's desk to be numbered, recorded, and forwarded to Hon. First Comptroller of the Treasury, with letter of transmittal, accompanied by all the statements and computations relating to said account.

10. These adjusted accounts are recorded by number in office of chief of division in duplicate, one copy of which is carried by messenger with the adjusted accounts to the proper official in the Comptroller's Office and the accounts by number compared with the duplicate and checked off. If correct, the said official receipts to the messenger for same, which record receipt is returned to chief of division of accounts.

MISCELLANEOUS AND STATISTICAL DESK.

The work of this desk consists of examining the quarterly accounts of one hundred and nine local land offices and entering the same in a book prepared and kept for that purpose, known as the "Quarterly records of the disposal of public lands." This book shows the number of entries made, the number of acres of the various classes of land sold, and the amount received therefor; total cash sales; also amount received from fees and commissions, together with the grand aggregate of all classes of entries; area disposed of, and cash receipts from all sources; in it is also recorded the various expenses incident to the sales of public lands, such as salaries and commissions, contingent expenses, expense of depositing, &c., for each quarter.

Each receiver forwards with his quarterly returns a recapitulation of the business transacted at his office during the quarter, showing the number of entries made, acres sold, and amount received therefor; amount received from fees and commissions. Upon receipt of same by returns clerk they are docketed and distributed to the several accountants, who compare them with detailed quarterly accounts, and the docket kept by returns clerk; if found correct they are so marked and sent to miscellaneous desk, when they are re-examined, and if no error is discovered therein they are entered in the "Quarterly records." Said accounts are afterwards compared with the account as adjusted and approved by the several officers of the Bureau. Should any difference exist they are corrected in accordance with adjusted and approved account.

From this book and at this desk is made up a detailed statement of the business transacted at each local office in the States and Territories during the fiscal year; also the recapitulation by States and Territories of the entire disposal of public and Indian lands during the fiscal year, as published in annual report of the Commissioner of General Land Office.

ACCOUNTS OF UNITED STATES SURVEYORS-GENERAL.

When an account of a United States surveyor-general, acting as disbursing agent, for illustration, say, of J. Cabell Breckinridge, of Washington Territory, is received and examined by the chief of this division, it is passed from him to the registering clerk, who, after registering, turns it over to the accountant, taking his receipt therefor. The latter, as soon as practicable, proceeds to examine it. If found incorrect or informal, or if not supported by proper vouchers, correspondence approved by the chief of division is held with the surveyor-general with a view of having it conform to the requirements of law and the regulations of the office. If found correct, or as nearly correct as circumstances will permit, a requisition is made on the register of the Treasury for a certificate giving a status of the account as shown on the books of that office, the object being to ascertain the amount of funds advanced to that officer and the balance, if there is any, due to or from him, as certified by the First Comptroller on a prior adjustment.

When the certificate is received an adjustment is made, and if a difference exists between the account and the adjustment the fact is shown by a "statement of difference" appended to the report.

The report is then presented to the chief or the assistant chief of division, who, if it appears to be correct, initials and sends it to the law examiners, who in turn pass upon it, and after initialing present it to the Commissioner of the General Land Office for his signature.

When signed by the Commissioner it is returned to the chief of the division, and by him to the book-keeper, who posts it in books kept for that purpose.

It is then referred to the recording clerk, who records and returns it to the accountant, and by him it is forwarded, with a letter, to the First Comptroller of the Treasury for his action thereon.

Simultaneously with the adjustment of the account the surveyor-general is notified of the action of the office in the matter.

ACCOUNTS OF RECEIVERS OF PUBLIC MONEYS.

The duties of this desk consist in the auditing and adjustment of the accounts of receivers of public moneys and receivers acting as disbursing agents.

1st. The receiver's account originates in this division with receipt by chief of division from mail room of Bureau of a monthly account-current rendered by receiver, showing the aggregate amount of sales of public lands, and the amount deposited by receiver in the United States Treasury on account of such sales for the month; fee statement showing the transactions for the month on account of fees and commissions; and detailed statement of fees received for reducing testimony to writing, making plats, diagrams, &c.

These accounts, when received by chief of division, are assigned to the docket clerk for examination and record, but if, after examination, they are found to be incorrect in any particular, the same are returned to the receiver, with letter, explaining wherein inaccuracies, discrepancies, or omissions exist, which very frequently occur, causing delay.

When the accounts are returned corrected they are received by the chief of division from mail room, and by him assigned to docket clerk, and then, if found to be correct, are recorded and delivered by docket clerk to the accountant, by whom same are retained until end of quarter.

2d. Receivers are required at the end of each quarter to prepare and transmit a quarterly account of sales of lands for cash, detailed quarterly statements of homestead entries, original and final, and detailed quarterly statements of timber-culture entries, original and final, showing number of acres and amount of fees and commissions received therefrom, and condensed accounts showing aggregate sales of all classes of entries and amount received therefor, together with amount deposited by receiver on account of said sales for the quarter.

When these quarterly returns are received from mail room by the chief of division they are assigned by him to docket clerk, who notes the receipt thereof in a book prepared for the purpose, and then delivers them to the accountant.

3d. In connection with receivers' accounts there is received by chief of division from the Treasury Department covering warrants, showing the amount deposited and covered into the Treasury by the receiver on account of cash sales, and fees and commissions during the quarter; these warrants after being recorded are delivered to this desk.

4th. Having received all returns and warrants connected with the account for the quarter, the accountant proceeds to make an adjustment of the account, which consists of comparisons of the account with the bond book to see if rendered under proper bond, as appears of record (the bond on file in Treasury Department).

The next step is a segregation of the different items under the different dates, so as to bring the several classes together to obtain the aggregate number of acres, and amount received from each class of lands.

5th. The monthly fee statements for the three months composing the quarter are aggregated under the different classifications.

6th. The monthly and quarterly accounts are then examined, in connection with each other and with the docket (the quarterlies being a condensation of the monthly accounts), and if found to agree the account is then stated, debiting the receiver with the amount received and crediting him with amount deposited, as covered by warrant. This is in the form of a report enumerating the different classes of entry—number of acres and amount, number, description, and amount of each covering warrant, Also showing balance, if any, due receiver or United States.

If any discrepancies are found to exist between the accounts as rendered by receivers and as adjusted by this office, they are explained in what is called a statement of difference.

In almost every instance more or less correspondence is had in connection with an account, for non-compliance with laws, or rules and regulations of Treasury Department and this office.

The account, as stated—or report—is then delivered by the accountant to book-keeper for examination and the entering of balance on ledger, who, after entering and initialing, delivers same to chief and assistant chief of division for examination and initialing.

8th. The chief of division then causes same to be delivered to the board of law examiners, who, after examination and initialing, submit it to the Commissioner for approval and signature.

9th. After signature by the Commissioner the report is returned to chief of division, who assigns same to file clerk, by whom it is sent to accountant, who delivers it to the copyist for record. After being recorded and compared, the report is returned to accountant, who transmits the report, with the accompanying papers, through the chief of division, to the First Comptroller of the Treasury for his action.

Five accountants and one recorder are employed upon the receivers of public moneys in the one hundred and nine local land offices in twenty-four States and Territories. The duties of all the accountants are similar, varied only by the class of lands disposed of.

CONTRACTS AND SURVEYING ACCOUNTS.

Surveying accounts are rendered under contracts entered into between United States surveyors-general and a United States deputy surveyor for survey of the public lands, private land claims, townsites, and, in some cases, Indian reservations.

Accounts based upon such contracts are prepared, stated, and certified to by the surveyor-general in the district presided over by him and forwarded to this office for action.

After approval by the Commissioner of the General Land Office contracts are sent to the division of accounts, where they are entered in the contract book by the clerk in charge of the surveying desk and filed for use in adjusting accounts.

Under contracts made direct by Commissioner of General Land Office for survey of Indian reservations, State or Territorial boundary lines, the accounts are stated, certified to, and approved by that officer, and a complete record is kept thereof.

When surveying accounts are received from surveyor-general they are referred to registering division. After being registered they are sent to chief of division of accounts. After being examined by him, sent to file clerk in his division to be registered, who then delivers accounts with accompanying letter to clerk in charge of surveying accounts, who receipts for the same.

After acceptance of plats and field notes of work of survey they are sent up to division of accounts from surveying division and receipted for by the clerk, and the account is, as soon thereafter as practicable, taken up and adjusted.

There are five classes of lines surveyable, viz, base, standard, meridian, township, and meander lines.

The method of adjusting accounts is as follows: An account is received from file clerk, covered by letter of surveyor-general of Colorado, in favor of B. F. Clark, for surveying three classes of lines, viz, township, meander, and section lines, charged at minimum rates, as provided in contract, and payable from "appropriation for surveying public lands" during fiscal year ending June 30, 1880, which I have examined, adjusted (with few corrections), and disposed of on the following basis, which govern accounts in general, rendered for one or more classes of lines:

1. Compare the account with the contract to ascertain if the work charged in the account is the same as provided in the contract at maximum and minimum rates per mile, or as provided by law, as the case may be, and if work is completed within limitation of time named in contract.

2. An examination of the field notes and plats of survey is made, first, to verify the distance surveyed on standard, meridian, township, and section lines in chains and links from corner legally set in its proper place on all lines running north, south, east, and west, and meander lines of rivers, lakes, and islands whenever they occur; and, second, to segregate the two classes of land where charged in the account at maximum and minimum rates.

3. Computing aggregate distance of each class of lines surveyed in miles, chains, and links, to verify that stated on the plats.

Where items in the account are verified they are checked; otherwise, in case of errors, corrections are made in both mileage and rates per mile, necessitating changes in the account.

The account is then reported for payment as adjusted on a blank prepared for that purpose, stating therein to what appropriation chargeable, of which there are three classes, viz: "General appropriation for survey of public lands," "Private land claims," and "Deposits by Individuals."

The account and report, with a letter to First Comptroller of Treasury and one to the surveyor-general, attached together, are then laid before chief and assistant chief of division, who examine them, and if correct they place their initials thereon, and then they go before a board of examiners for their inspection, and thence to Commissioner for his review and approval.

After the favorable action of the Commissioner they are returned to chief of division of accounts, and then sent to the book-keeper to be charged to the proper appropriation.

The report and letters, after being recorded in the proper books by the book-keeper and copyist, are handed to the clerk from whom they originated, who then proceeds to make entries in books as follows :

4. Contract-book.

Crediting the surveyor with the work executed and amount claimed, and charging him with the amount of the account as adjusted and allowed per report, and if there is a difference from the amount claimed, the difference is so stated, and if the work under the contract is completed the case is closed.

5. Special-deposit book.

Where accounts are chargeable to "Deposits by Individuals," books of deposit are kept separately by districts, and the clerk then charges in proper district book, against the sums deposited for the work by township and range, the amount of the account as stated in the report.

6. Returns of survey-book.

Enter therein, under head of proper fiscal year in which contract is dated, surveys by township and range, miles, chains, and links of lines as classed, name of deputy surveyor, date of contract, area of land surveyed, date of commencement and completion of survey, number of report of payment, and amount paid.

7. The account, with report, is then inclosed in the letter of transmittal and sent by messenger to First Comptroller of Treasury (who receipts for same), with request that draft be sent to address of payee as directed in the account, and the letter to the surveyor-general, which advises him of adjustment of said account, amount allowed, of all changes or reductions, as the case may be, is then press copied and mailed, thus disposing of the case so far as this office is concerned.

8. In the case of "Survey of Indian Reservations" the same course is pursued as in examination of returns of surveys and the same entries are made in the books of this office as of public and private lands, with this difference: "Indian Reservations" are noted as such, and the accounts, after being stated, certified or approved by the Commissioner of the General Land Office, are transmitted with letter to Commissioner of Indian Affairs for his action, the appropriation for that specific purpose not being carried on the books of this office.

There is another class of his accounts which the same clerk adjusts, viz :

Accounts of "examiner of surveys" in the field, to test the accuracy of the work of deputy surveyors and to prevent payment for fraudulent and imperfect surveys, which service is performed under "Special Instructions" at a per-diem rate and all necessary and reasonable expenses, including hire of assistants.

These accounts are required to be itemized and accompanied by vouchers for all sums expended by the examiner over the amount of \$1, sworn to by the examiner, and approved by the surveyor-general. When this account is received it passes through the same course as the other class of accounts, and when it reaches the adjusting clerk is referred, through the chief of his division, to the chief of division of public surveys, for report as to time occupied and charged by the examiner being reasonable and necessary in the prosecution of said examination.

When the account is returned with report called for, it is then taken up, each voucher critically examined and compared with the account, when, on the basis of adjustment, it is reported for payment, and is finally disposed of, as in cases of surveying accounts, except that the book-keeper makes all entries in cases of examinations.

In addition to the above matters, besides surveyor-general's letters, there is considerable miscellaneous correspondence which receives due attention, and all letters written, besides being recorded, are press copied, and all letters answered are noted thereon "answered" by date and delivered to the file clerk, who surrenders receipt.

After surveying accounts come into the division of accounts for adjustment, they are often delayed for a short or long time, induced by an examination in the field by "examiners of surveys" to test the accuracy of the survey and consequently the correctness of the account. The surveying accountant cannot avoid this delay. He must wait until the chief of division receives from the chief clerk of surveys notice that the report of the said examiner of surveys is received and the work of the surveyor is accepted by the Commissioner of the General Land Office.

Repayment of purchase money, fee, commissions, and excess, for lands erroneously sold, under sections 2362, 2263, and 3689, U. S. Revised Statutes, and the act of Congress approved June 16, 1880.

William Jones, desiring to enter a portion of the public domain, goes to the local land office at Olympia, Wash., and presents a written application to the register to enter the NW. $\frac{1}{4}$ of Sec. 24, T. 6 N., R. 10 W. After the above preliminaries, if the tract is vacant, the register will so certify to the receiver, stating the price the applicant must pay to the receiver and the amount of the purchase money. Thereupon the receiver will issue his receipt in duplicate for the money paid, and the register his certificate of purchase.

At the close of the month the register and receiver will make returns of the sale to the General Land Office.

If in the examination of the monthly returns of sales it is found, on posting the returns upon the tract books of this office, that the entry made by Jones is in conflict with a prior entry or a prior grant to the State or for other purposes when the United States has parted with the title, the register and receiver at Olympia are so informed of such conflict, and are directed to notify the entryman, allowing sixty days for appeal to the honorable Secretary of the Interior, to show cause why his entry should not be canceled.

If the entryman concludes to take no appeal, he can avail himself, by making proper application to this office, through the register and receiver at Olympia, for the return of the purchase money paid on his entry. (Blank forms of application are furnished by the local officers.)

The register and receiver, upon receipt of the application for repayment, forward the same to this office with their joint report in the case. The application must be accompanied by the duplicate receipt.

If the duplicate receipt has been lost or destroyed, the entryman must advertise the fact of such loss, giving notice of his intention to apply for repayment of the purchase money. This advertisement must be inserted weekly for six weeks in some newspaper of extensive circulation in the vicinity of the land.

A copy of the advertisement, with the affidavit of the publisher or other person having charge of the paper, that it was inserted the requisite number of times, must accompany the papers in the case.

If the duplicate receipt has become a matter of record, the entryman must execute a deed relinquishing to the United States all right, title, and claim to the land under his entry. This deed must be duly recorded and a certificate produced from the proper recording officer where the land is situated showing that said deed is so recorded, and that the records of his office do not exhibit any other conveyance or incumbrance of the title to the land.

If William Jones has transferred the land, then his transferee must show his right to repayment by furnishing properly authenticated abstracts of title, or the original deed or instruments of assignment or certified copies thereof.

Upon the receipt of the application of William Jones by this office, the same is registered in the mail room, properly numbered, say 44964, then referred to the division having cognizance of cases of this character. It is examined by the chief of the division; then sent to the file clerk, who docket the same, and charges the case to the clerk having the matter in charge. To illustrate: The repayment clerk receives the application of William Jones; he then docket the case, giving the number and character of entry, name of applicant, land office and State, description of the land, section, township, and range, date of application, and date when received.

After the case has been duly entered upon the docket, he then makes an examination of the tract-books to determine the status of the entry, and to ascertain whether the party is entitled to the return of the purchase money. If after ascertaining all the facts in the case, that the entry was canceled for conflict, or that the same was erroneously allowed, and that the party is entitled to repayment, and if the evidence submitted is satisfactory, an account is written up with a full statement of the ground of cancellation.

The account is then submitted to the chief and assistant chief of division for their examination and approval. If it meets their approval, they initial the same; it is then submitted to the reading board for their approval, and it is then submitted to the Commissioner for his signature.

After the account has been signed by the Commissioner, it is then submitted to the honorable Secretary of the Interior, together with all the papers in the case, for his action. If after a careful examination of evidence submitted with the account, it is found to be satisfactory, the Secretary approves the account and returns it.

The repayment clerk then writes a certificate to be signed by the Commissioner, as follows:

[Report No. 49874.]

DEPARTMENT OF THE INTERIOR, GENERAL LAND OFFICE,
April 30, 1886.

I hereby certify that I have examined and adjusted an account between the United States and William Jones, and find that the sum of \$100 is due from the United States to the said William Jones, being the amount paid by him for land erroneously sold to him at the land office at Olympia, Wash., September 1, 1885, per certificate No. 719, and which sum is payable in pursuance of sections 2362, 2363, and 3689, United States Revised Statutes, and the act of June 16, 1880, authorizing repayment for lands erroneously sold to the said Jones for the purchase money so paid by him for the NW. $\frac{1}{4}$ Sec. 24, T. 6 N., R. 10 W., containing 160 acres of land, at \$1.25 per acre.

It appears from the returns made to this office, and records thereof, that the above-described entry was canceled by office letter "C," January 4, 1886, because of conflict with prior cash entry No. 420, made by Henry Williams.

And as appears from statement and vouchers herewith submitted for the decision of the Comptroller of the Treasury thereon.

WM. A. J. SPARKS,
Commissioner.

One hundred dollars to be remitted to William Jones, Olympia, Wash.

To Hon. M. J. DURHAM,
First Comptroller of the Treasury.

After this certificate is signed by the Commissioner, indorsement is then made on the entry papers of the fact that repayment is ordered, and the proper annotation is made upon the tract-books.

The certificate, the amount approved by the Secretary, together with all the papers pertaining to the case, are then forwarded to the honorable First Comptroller of the Treasury for his action.

Swamp account.

A certified list of swamp selections for which the State of Louisiana claims indemnity under the act of Congress approved March 2, 1849, was forwarded to the chief of division of accounts from the swamp land division, and referred by him to desk of repayment clerk for adjustment.

The list of selections is accompanied by the original certificates of purchase issued by the register and receiver at the time of sale, certifying that the parties named therein have purchased the tracts designated in the several certificates.

From these certificates the adjustment of the account is made, each certificate being subjected to a careful examination, and the name of purchaser, description of tract, section, township, and range, area, price, and amount, entered on a blank form prepared exclusively for the adjustment of the account.

After the adjustment is completed the area and amounts are footed, and the account, together with all the papers in the case, are placed in the hands of the chief of division, who thereupon subjects same to an examination and comparison.

If found correct he will certify to the fact.

The account is then passed to the chief of the swamp land division, who certifies that the lands contained in the list were found, after a careful examination of the field notes of United States surveys, and other evidence on file in the General Land Office, to be swamp land within the intent and meaning of the act of Congress approved March 2, 1849.

At this stage, the account is referred to the Commissioner, who certifies to the honorable Secretary of the Interior that the lands contained in the list for indemnity are swamp lands within the intent and meaning of the act of Congress approved March 2, 1849, and having been sold by the United States prior to the passage of the act of March 3, 1857 (extending the provisions of the act of March 2, 1855), section 2482 U. S. Revised Statutes, that said State of Louisiana is therefore entitled to receive the sum of \$, as indemnity, according to the provisions of section 2482 U. S. Revised Statutes, and recommends that the account be approved.

All papers and proof in the case are duly transmitted to the honorable Secretary, and after examination, if found correct, is approved and returned to this office for final action.

Upon receipt of account from Secretary, the Commissioner certifies to the First Comptroller of the Treasury that he has "examined and adjusted an account between the United States and the State of Louisiana, and that due proof has been filed in his office showing that said lands were swamp lands within the intent and meaning of the act of Congress, approved March 2, 1849, and that said State is entitled to the indemnity claimed, and recommends the approval of the account."

Local office returns desk.

The object of this desk is the examination of the returns received from the several district land offices; to see that the same are made in accordance with law and official requirements; ledger records are made and kept of the disposition of the public domain, also of all Indian lands, as reported by the local officers.

The monthly and quarterly returns from the 109 existing district land offices are received at this desk direct from the mail division. They aggregate between eight and ten bushels in volume each month, embracing on an average about 16,000 entries or cases.

The returns from each office are segregated from the mass and put in order; each entry or case is then carefully counted and compared with the registers' and receivers' abstracts of entries and receipts of each character of disposals; the abstracts of each are critically compared with the receiver's account-current and fee statement, with a view to detecting any errors or discrepancies that may exist therein, particularly in the matter of omissions of any kind; the preserving the several series of registers' and receivers' numbers; the correct area to be reported; the amounts reported as received are properly accounted for, &c.; the detailed statement of testimony fees is then in turn compared with the account and fee statement, thus completing the examination. Errors or discrepancies of any kind discovered in the examination are, according to their character, either remedied at this desk or required to be cured by the local officers. The returns are then seriatim docketed, by offices, from said accounts and forwarded to the several divisions for further and final action, minus the accounts which are retained in this division (accounts) and delivered to the several accountants for final examination and adjustment.

NOTE.—See example A herewith, giving in detail the examination of an office returns.

EXAMPLE A.

Huron, Dak., returns for the month of January, 1887. E. W. Miller, receiver. Showing in detail the action had by the returns desk in the examination, docketing and reference of the monthly and quarterly returns from a single office.

1. The chief of the division received from the mail division letter No. 37225 from the register and receiver, transmitting the returns; after examination by the chief it was sent by him to the file clerk, who in turn docketed it; it was then by him delivered to the examining clerk in charge of local office returns. Accompanying the letter was a "mail card," prepared by the file clerk, in which is charged the letter delivered, for which the returns clerk receipted to the file clerk upon duplicate card.

2. The bulk of the monthly returns, consisting of the account-current, fee statement, and detailed account of testimony, &c., fees, and the register's and receiver's abstracts of declaratory statements and entries and receipts, also the papers pertaining to the several characters of entries, were received at the returns desk direct from the mail-room.
3. The returns were then arranged in order and the several classes of entry papers carefully counted by the assistant returns clerk.
4. They were then taken in charge by the examining clerk; the account-current, fee statement, and detailed account of testimony, &c., fees, the abstracts of declaratory statements and of entries and receipts were then critically examined by him, the one with the other, and each with the account-current and fee statement, and in turn the detailed account of testimony, &c., fees, with the account-current and fee statement. No omissions of entries or abstracts or irregularity in the preparation and transmission of these returns were discovered. The examination is completed, which shows, substantially, the operation had in the receipt and examination of the monthly returns of any one office by the local office returns examiner and the assistant.
5. The returns were carefully put in order, tied up and sent by messenger to the divisions having subsequent action thereon, minus the letter of transmittal, the account-current, fee statement, and detailed account of testimony, and fees which were retained by the examining clerk and turned over to his assistant.
6. The assistant then proceeded to make a record of the same in the dockets kept for that purpose, in the following order, namely: (1) The number of the register's and receiver's letter. (2) From the account-current, fee statement, and detailed account of testimony, &c., fees, the register's and receiver's numbers, the area, and the amounts reported as received on account of the disposition of all characters of land, and the balance due the United States by the receiver at the close of the period.
7. The letter of transmittal was then delivered to the file clerk, who receipted to the examiner therefor, and the accounts turned over to the accountant having charge of the adjustment of the same, thus completing the requirements and final official action in the examination and disposition by this desk of the monthly returns of a local office.
8. The quarterly returns, consisting of the detailed account of cash receipts, the condensed account and recapitulation of the same, the disbursing accounts, together with the vouchers pertaining thereto, and the detailed statements of original and final homestead and timber-culture receipts, were also received at this desk with the letter of transmittal, through the file clerk, recorded in the order named, in a special record, and by the examiner handed to the accountant having charge thereof.

Special agents and miscellaneous accounts desk.

The duties of this desk relate to the adjustment of all salary, per diem, and expense accounts of the inspectors, examiners of surveys, special, timber, fraudulent land and swamp agents, and custodians of abandoned military reservations; also of all accounts for transportation of agents and other employes of this office, for transportation of stationery and supplies sent from this office to the various local land offices; accounts for purchase of books, &c., for the General Land Office library; accounts for "printing maps"; for repairing plats of surveys, all bills for advertising, viz: Sale of public lands, restoration of lands to public domain, timber, logs, railroad ties, bids for printing maps, plats of surveys, and any other miscellaneous accounts.

Accounts are paid from different appropriations, viz, "Expenses of inspectors G. L. O."; "Surveying the public lands"; "Depredations on public timber"; "Protecting public lands"; "Settlement of claims for swamp lands and swamp land indemnity"; "Preservation of abandoned military reservations"; "Contingent expenses of General Land Office."

Special agents account.

Special Agent and Examiner C. F. Conrad presents an account for salary and expenses for the month of August.

1. Received at mail room, recorded and numbered.
2. Sent to chief of division of accounts.
3. By chief turned over to file clerk.
4. File clerk records same in journal and indexes same in general index.
5. File clerk turns the account over to the clerk who has the adjustment of same and takes his receipt therefor.
6. Clerk records same in his special book by number, name of party, date, post-office, date of receipt, and from file clerk, and date of reference to surveying division.
7. Clerk then enters same by number and name in another book, with date, and refers same to surveying division for certification as to correctness of date, time of service, and authority for incurring the expenses, taking receipt of the chief of said division for same.
8. Upon return of the account from the surveying division the date of receipt is duly recorded upon both record books.
9. The account consists of a salary charge and an itemized statement of expenses for board and lodging for himself and assistants, expenses of team hire, pack animals, supplies for field use, for camp equipage, charges for services of cook, packer, chainmen, axman, and surveyor. Each item is sustained by a voucher, except that for his own salary.
10. The examination and adjustment of the account consists in comparing all dates of service charged in the account with those appearing in the voucher, charges for board and lodging calculated for each fraction of a day, at the rate per day; calculations made for each item appearing in the itemized bill for field supplies, also for number of days charged for the use of teams, pack animals, surveyor, and other assistance.
11. In the examination of this account it is found that items are charged in bill of supplies that are not allowable, and same is noted. It is also found that pack animals are charged for on certain days, but weekly reports of the agent show that on said days he had not entered upon his examination, and therefore could not have had use of the animals; noted. Charges are made for use of packer, cook, chainmen, and surveyor on certain days that are not borne out by his weekly reports; noted. Charges so noted are either disallowed or suspended, and are placed in a statement of differences, which is attached to the account, and the account is adjusted for the amount claimed, less the suspensions or disallowances. Long or short delays occur before supplemental accounts for suspensions are adjusted.

12. Upon the completion of the examination the amount to be approved by the Commissioner is written out in full upon a designated space on the face of the account.
13. A letter is then prepared, directed to Mr. Conrad, notifying him that the account stated at a certain sum had been adjusted at the amount found to be allowable.
14. The letter shows in detail what items have been suspended or disallowed, and the reasons for such action.
15. Account and letter is then sent to the book-keeper, who charges the amount against the appropriation for surveying the public lands.
16. It is then passed to the chief and assistant chief of the division for their approval and initial and the certificate of the chief of division as to the correctness, and by him to the law examiners, who examine and send it to the Commissioner for approval and signature.
17. The date of adjustment and transmittal to the Commissioner are noted in our record book.
18. When the Commissioner has approved said account it is returned to the chief of this division, who sends it to the file clerk, who gives credit to the clerks making the adjustment.
19. The file clerk then returns the account to the clerk, who notes in his record the date of receipt from the Commissioner.
20. The account and letter of notification is by him then given to the copyist, who makes a correct copy of both letter and account.
21. After record the letter of notification is again returned to the clerk who wrote same, and a letter-press copy made by him; the letter is then mailed to its proper destination; date of return from copyist and the mailing thereof is also made in his record.
22. When the account is recorded and indexed it is sent to the chief and assistant chief of the division, who transmit same by messenger to the disbursing clerk of this Department, when it is again examined, and sent to the honorable Secretary for signature; when signature of Secretary is obtained it is again returned to the disbursing clerk, where same is recorded and draft for the amount allowed sent to Mr. Conrad at his head-quarters.

Adjustment of Adams Express accounts.

Adams Express accounts are adjusted quarterly, as follows: The accounts are received, with the accompanying vouchers or way-bills by the mail clerk, and forwarded to the chief of the division of accounts, by whom they are examined and sent to the file clerk to be docketed; the latter delivers them to the accountant, taking a receipt therefor. The accountant proceeds to the adjustment in the following order:

- (1) Prove the footings of charges in account.
 - (2) Find the total amount of deposits.
 - (3) Compare the vouchers, or way-bills, with account.
 - (4) Separate the depositaries.
 - (5) Examine the vouchers.
 - (6) State the account.
 - (7) Take the report number.
 - (8) Write letter of transmittal to Comptroller.
 - (9) Brief and file the envelopes for record.
 - (10) Send account to the book-keeper for entry.
 - (11) Write letter of notification of adjustment to express agent.
 - (12) The book-keeper delivers the account to the chief of division for approval, after which—
 - (13) It is sent to the Commissioner for signature.
 - (14) When received from the Commissioner by the chief of the division, it is again sent to the file clerk, who delivers it to the clerk who has adjusted it; the latter places it in the hands of the recorder; after it is recorded the report of adjustment is briefed and transmitted, with the account and vouchers, to the First Comptroller of the Treasury, with request that draft for payment of the amount found due be forwarded to the agent of the company.
- The letter of notification to the agent, after approval by the chief of division and signature by the Commissioner, is handed to the recording clerk; when returned to the desk of the accountant by the latter a press copy is taken and the original letter mailed to the company's agent.

Division of accounts—book-keeper's desk.

Interior civil appropriation warrants are issued by the Treasury Department, giving the titles and amounts appropriated by Congress for expenses connected with the land service, and accounts are opened in a ledger and all expenditures made therefrom and amounts repaid are posted therein, under the proper head, in order that a correct account may be kept of the amount expended under each appropriation, and that the expenses of the service may not exceed the amount of the appropriation.

Accounts are kept on this desk of the following appropriations made by Congress:

- “Salaries and commissions of registers and receivers.”
- “Contingent expenses of land offices.”
- “Expenses of depositing public moneys.”
- “Depredations on public timber.”
- “Protecting public lands.”
- “Expenses of hearings in land entries.”
- “Settlement of claims for swamp lands and swamp land indemnity.”
- “Reproducing plats of surveys.”
- “Surveying public lands.”
- “Examination of surveys.”
- “Surveying private land claims in California.”
- “Surveying private land claims in Louisiana.”
- “Surveying private land claims in New Mexico.”
- “Preservation of abandoned military reservations.”

“Appraisement and sale of abandoned military reservations.”

“Expenses of inspectors, General Land Office.”

“Library, General Land Office.”

“Maps of the United States.”

“Resurveys of the public lands.”

“Surveying public lands in Nevada.”

“Surveying the Hanson grant, Florida.”

“Additional copies map of the United States.”

“Deposits by individuals for surveying public lands.”

Salaries, office of surveyor-general of Arizona, California, Colorado, Dakota, Florida, Idaho, Louisiana, Minnesota, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

Contingent expenses, office surveyor-general of Arizona, California, Florida, Colorado, Dakota, Idaho, Louisiana, Minnesota, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

Accounts are kept with each surveyor-general under such of the above-named appropriations as pertain to his office, which are those for salaries, contingent expenses, deposits by individuals, surveying the public lands, and, in California, Louisiana, and New Mexico, surveying private land claims. He is debited, under the proper head, with all moneys advanced to him as disbursing agent, and credited with all expenditures therefrom.

Accounts are kept with each receiver of public moneys, acting as disbursing agent, under such of the following-named appropriations as are required to be used for expenses at his office, and he is debited and credited as above:

“Salaries and commissions of registers and receivers.”

“Contingent expenses land offices.”

“Expenses of depositing public moneys.”

“Depredations on public timber.”

“Protecting public lands.”

“Expenses of hearings in land entries.”

Accounts are kept with each receiver of public moneys, in which he is debited with the amount, as shown by his adjusted accounts, of all moneys received by him during each quarter from the disposal of public lands, and credited with all moneys deposited by him to the credit of the Treasurer of the United States, during the same period.

Accounts are kept with each surveying district in which deposits made on account of office work connected with surveying public lands are credited, and expenditures made therefrom are debited.

To ascertain at any time with facility the amount of an appropriation which is unexpended, a daily balance register is kept.

All payments made by the Treasury Department are entered upon and posted from a blotter.

Expenditures by disbursing agents and amounts debited and credited to receivers are posted directly from their adjusted accounts.

Reports of receivers and disbursing agents adjusted accounts are critically examined when they reach this desk, and any inaccuracies or omissions are reported to the chief of the division, and the report is at once amended or corrected.

The following shows the method of disposing of adjusted accounts, &c., when received from the accountants:

April 6, 1887, received from requisition clerk and accountants the following:

Request to the honorable Secretary of the Interior for the issue of a requisition in favor of J. McEllis, receiver, acting as disbursing agent at Denver, Colo., payable from the appropriation for salaries and commissions of registers and receivers, 1887, \$1,500.

Special Agent John Smith's account for month of March, 1887, payable from appropriation for protecting public lands, 1887, \$240.

Report No. 47250, Deputy Surveyor Samuel Jones's account for \$2,500 payable from appropriation for surveying the public lands, 1886.

Report No. 40700, adjusted account of Z. T. Crawford, receiver of public moneys at Gainesville, Fla., for quarter ending December 31, 1886.

Report No. 40701, adjusted account of Z. T. Crawford, receiver at Gainesville, Fla., acting as disbursing agent, for fourth quarter, 1886.

A memorandum of the special agents' and deputy surveyors' accounts, and of the request for requisition is entered on the blotter.

The reports of receivers' and disbursing agents' accounts are then thoroughly examined as stated.

All adjusted accounts, reports, &c., if they appear to be correct, are handed as they are received and passed by the book-keeper to the chief of the division, who refers them to the assistant chief for his inspection.

Then, if approved by the chief of the division, the law examiners, and signed by the Commissioner, they are returned to the chief of the division and referred by him to the book-keeper.

Those which are noted upon the blotter are checked off at once and handed to the file clerk; and they are posted from the blotter in the proper ledgers and under the proper head.

The amounts debited and credited to Z. T. Crawford, in the adjustment of his accounts as receiver and as acting disbursing agent, are posted, as described herein, from the reports, which are then referred to the file clerk.

As accounts are returned signed the balances on the balance record are changed daily.

Deposits by individuals for surveying public lands.

A letter transmitting duplicate certificates of deposit, issued on account of surveying public lands, is received by the chief of the division, and delivered to the file clerk. After entering a brief of it upon his records he turns it over to the assistant book-keeper, taking his receipt therefor.

As soon as it is practicable letters acknowledging the receipt of certificate, are written, and a description of each certificate is entered upon the records. The deposits made for surveys in each district are kept separately.

Letters acknowledging the receipt of the certificates, after being approved by the chief of the division, the law examiners, and signed by the Commissioner, are returned to the chief of the division, referred by him to the file clerk, noted by him, recorded in the proper book, press copied by the writer, and mailed.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below in the accounts division of the General Land Office, Department of the Interior:

Character of business.	Pending July 1, 1883.	Received during 1884.	Disposed of in 1884.	Pending July 1, 1884.	Received during 1885.	Disposed of in 1885.	Pending July 1, 1885.	Received during 1886.	Disposed of in 1886.	Pending July 1, 1886.	Received during 1887.	Disposed of in 1887.	Pending Mar. 1, 1887.
Letters	1,662	22,989	20,721	3,830	26,752	24,647	5,935	22,613	25,357	3,191	12,351	15,234	308
Accounts	3,158	4,000	4,993	2,165	5,100	4,818	2,447	6,553	7,158	1,842	3,063	3,382	1,523

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employes in the accounts division of the General Land Office, Department of the Interior:

Character of business.	July, 1883.	Aug., 1883.	Sept., 1883.	Oct., 1883.	Nov., 1883.	Dec., 1883.	Jan., 1884.	Feb., 1884.	Mar., 1884.	Apr., 1884.	May, 1884.	June, 1884.
Letters written	1,726	1,726	1,727	1,726	1,726	1,726	1,726	1,726	1,726	1,726	1,726	1,726
Accounts adjusted	416	416	416	416	416	416	416	416	416	416	416	417
Entries of public land received, examined, and disposed of	16,787	16,787	16,788	16,787	16,787	16,787	30,168	30,168	30,168	30,168	30,168	30,168

Character of business.	July, 1884.	Aug., 1884.	Sept., 1884.	Oct., 1884.	Nov., 1884.	Dec., 1884.	Jan., 1885.	Feb., 1885.	Mar., 1885.	Apr., 1885.	May, 1885.	June, 1885.
Letters written	1,834	1,894	1,891	1,834	1,834	1,834	1,777	1,701	1,777	1,777	1,720	1,777
Accounts adjusted	409	421	421	409	409	409	397	377	397	397	337	385
Entries of public land received, examined, and disposed of	20,127	20,127	20,127	20,127	20,127	20,127	20,127	20,127	20,127	20,127	20,127	20,127

Character of business.	July, 1885.	Aug., 1885.	Sept., 1885.	Oct., 1885.	Nov., 1885.	Dec., 1885.	Jan., 1886.	Feb., 1886.	Mar., 1886.	Apr., 1886.	May, 1886.	June, 1886.
Letters written	1,850	1,850	1,972	1,973	1,971	1,973	1,727	1,726	1,788	1,739	1,740	1,724
Accounts adjusted	601	602	641	642	641	642	561	560	591	560	561	556
Entries of public land received, examined, and disposed of	20,253	20,253	20,253	20,253	20,253	20,253	20,253	20,253	20,253	20,253	20,253	20,253

Character of business.	July, 1886.	Aug., 1886.	Sept., 1886.	Oct., 1886.	Nov., 1886.	Dec., 1886.	Jan., 1887.	Feb., 1887.	Mar., 1887.	Apr., 1887.	May, 1887.	June, 1887.
Letters written	1,785	1,913	1,976	1,912	1,913	1,911	1,915	1,909	.....	.....	.....	.....
Accounts adjusted	396	433	437	428	420	428	427	413	.....	.....	.....	.....
Entries of public land received, examined, and disposed of	18,309	18,308	18,312	20,885	20,887	20,888	14,052	13,312	.....	.....	.....	.....

The following statement shows the average number of employés (including chief of division) in the accounts division of the General Land Office, Department of the Interior, during the periods specified:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	30	30	30	30	30	30	32	33	33	32	32	32
1885.....	31	31	31	31	30	30	30	30	32	32	32	32
1886.....	28	28	29	28	28	28	28	30	31	30	30	30
1887 (to Mar. 1).....	30	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

No account has been kept in this division "of the business performed and disposed of by each employé" during the years 1884, 1885, 1886, and 1887, until since March 1, 1887.

The presumptive reason "why such account has not been kept" is, that no order to that effect issued until that date.

It follows that the required statement cannot be given, except for the period of the fiscal year intervening between March 1, 1887, and the date of report.

The weekly reports of business transacted by each employé, as required by Department order of March 1, 1887, is a numerical report of letters written, accounts adjusted, pages copied, and pages type-written, &c. It would be manifestly unjust to accountants in the accounts division of the General Land office to attempt to show, as between clerks, by whom the most or least "business is transacted" in any given time. "Accounts" is the highest generalization of classes of work, each of which may vary so widely one from the other in points of time consumed in adjustment, character of computation, contingent examinations, short or long, simple or complex accounts, that it is impossible to state with even approximate accuracy which accountant transacts most or least business.

Two clerks, for instance, of equal capacity may work, one as hard as the other, during the seven working hours of a day, or the forty-two working hours of a week, and one adjust three accounts and the other ten accounts. A statement showing the numerical fact would be essentially misleading as to the amount of work done, because the three require as much work as the ten accounts, and the clerk who adjusts the three accounts may work harder than the clerk who computes the seven accounts, because of the more difficult character of the three accounts. The figures indicate that one clerk does more than three times as much work as the other. This state of the case is true also of writing letters. Two letters may be written, one in twenty minutes; the same number of pages of another, that requires the investigation of records, of law, of rules, and regulations relating to its subject-matter, in its preparation may consume seven hours. Some accounts adjusted in this division require three months of continuous work. A three-line telegram to the Commissioner of the General Land Office from a chairman of a committee of Congress, referred to this division requiring a certain statement, has consumed a week or more for an accountant to prepare it.

Figures will decide between type-writers and copyists as to which does most and least work in a given period by counting and reporting the number of pages written by each; but not so as to accountants.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the accounts division of the General Land Office, Department of the Interior:

Year.	No. of employés.	Average No. of days present.	Average No. of hours employed daily.	No. of working days.	Average days absent.
1884.....	31½	246 ⁷ / ₁₃	7	267	60 ⁰ / ₁₁
1885.....	31	257 ² / ₈	7	301½	43 ¹ / ₈
1886.....	29	264 ⁹ / ₂₉	7	305	40 ³ / ₂₉
1887 (to March 1).....	30	44 ⁵⁹ / ₂₁₆	7	48	3 ¹ / ₂₁

The official day is from 9 to 4 (seven hours); but there is allowed to the employés thirty minutes, from 12 m. to 12.30 p. m., for lunch, which is almost invariably availed of, thus making the average office hours not to exceed 6½.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the accounts division of the General Land Office, Department of the Interior, during the periods specified :

	1884.	1885.	1886.	1887 (to Mar. 1.
Maximum number of days	*295 $\frac{3}{4}$	*279 $\frac{1}{7}$	*285 $\frac{3}{7}$	*48
Minimum number of days.....	†187 $\frac{5}{7}$	†232 $\frac{2}{7}$	‡244 $\frac{5}{14}$	†34 $\frac{1}{2}$

* Accountant.

† Copyist.

‡ Clerk class one, miscellaneous work.

MINERAL DIVISION.

Report of the mineral division, General Land Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the mineral division of the General Land Office, Department of the Interior.

- (1) Mineral and coal entries.
- (2) Contests.
- (3) Quasi-contests.
- (4) Agricultural entries, involving mineral character of the land.
- (5) Railroad lists referred to this division for examination, involving the mineral character of the land.
- (6) Petitions for suit by the United States to set aside mineral patents.
- (7) Preparing certified copies of papers, plats, and records.
- (8) Correspondence.
- (9) Miscellaneous matters—*e. g.*, relinquishments, requests by registers and receivers and surveyors-general for instructions, &c.

If any of the above items are not included in the tabulated statements following, it is because no separate account has been kept of work done under them.

The various classes of business resulting from action on these items are fully shown in the following statement of methods of transacting business :

Statement showing in detail the methods of transacting business in the mineral division of the General Land Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the General Land Office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

Letters relating to matters coming before this division are first received in the general registering room, where the letter and inclosures are numbered and entered in the proper registers. Except the abstracts of sales and papers relating to coal entries, which are first sent to the division of accounts, and to the division of public lands for posting, after which they are brought to this division, such part of the daily mail received at this office as involves mineral questions is then regularly referred to this division and placed on the desk of the chief, who inspects it for the purpose of making proper reference of the various matters and hands it to the docket clerk.

(1) A general supervision over all the work of the division is exercised by the chief of division, who is responsible for the management of the division and the conduct of the business within its jurisdiction. He inspects the daily mail upon its receipt and properly refers it for action, gives directions in regard to the assignment of work, and passes upon all letters and decisions submitted by the clerks, placing his initials upon them, if approved by him. He submits weekly summary and detailed reports to the chief clerk, showing the state of work in the division, and the progress made during the week, and the work done by each clerk in the division. He also has charge of the discipline of the clerks and submits a daily and weekly report showing attendance and absences.

(2) Each letter is entered in the register of letters received, and also, if relating to a contest or quasi-contest case, upon the contest or quasi-contest docket. The letters of that day are then handed to the file clerk for distribution among the clerks to whom they have been assigned by the chief. After official action is taken upon each letter it is indorsed by the clerk with a note, showing such action, and returned to the docket clerk, who notes such action opposite the entry of said letter in the register of letters received, and also, if it relates to a contest or quasi-contest case, upon those dockets. The contest and quasi-contest dockets show all letters received and all action taken in each case.

(3) Upon receiving the daily mail from the docket clerk the file clerk distributes among the various clerks all letters except those forwarding mineral entries, contests, or quasi-contests which have not before been pending in the division. The papers relating to a new contest or quasi-contest, inclosed in a properly indorsed jacket, are placed in the appropriate files to await action in their regular order. A new mineral entry he enters upon the general docket of *ex parte* mineral and coal entries, from which work is assigned, giving it the proper number in the order of its receipt, and he also enters it upon the docket of mineral or coal entries made in the particular district. He then incloses the papers in a jacket, which is properly indorsed, and, after sending the register's final certificate of entry to division C for posting upon the tract-books, places the case in the unexamined files to await examination in its order upon the docket. A protest against an entry is assigned by the chief of division to the clerk who may have the entry under consideration, or, if the case has not yet been reached in its regular order, is filed with the case to which it refers, for examination in connection therewith. The receipt of the protest is acknowledged.

The file clerk has charge of all the files of the division, and sends cases and papers to the attorney's room upon proper requisition by card, and is responsible for the safe keeping of the records and papers in his charge.

(4) When an entry, which may embrace a lode claim, placer claim, lode and placer claim, mill site claim, either separate or in connection with a lode claim or a coal claim, is reached in its regular order for examination, the entry is assigned to an examining clerk for official action. His examination requires a minute investigation of the various points hereafter enumerated in a note on page 27 of description of proceedings in the Maid of Erin case. If he finds, upon examination, that no objection to the issue of patent exists, he indorses the jacket of the case, "Entry approved," with date of approval and his initials. The papers in the case then go to the board in charge of the issue of mineral patents.

If, on the other hand, the examiner of the case should find the entry defective in any respect, a decision in the form of a letter, addressed to the register and receiver or surveyor-general, stating the defects, and instructing them to call upon the claimants for supplemental evidence, or requiring amendment of the survey, is prepared by the examiner. This decision is submitted to the chief of the division for his approval. If he approves it he places his initials thereon and sends it to the board of law examiners for their consideration. In exceptional cases it is also submitted to the law clerks. If signed by the Commissioner or Assistant Commissioner it is press-copied and mailed. It is also from the press copy-book copied into the permanent records, compared, and indexed. The entry papers are then placed in the suspended files to await further action by claimants. If claimants are represented here by attorney, such attorney is notified of the action by letter, similarly prepared by the examiner, approved, and signed. If not, the parties are notified by the register and receiver or surveyor-general.

[NOTE.—All letters and decisions take the course here described, and such description will not hereafter be repeated in this statement of methods. As a rule, however, personal letters are not recorded in the permanent records, but they are properly indexed therein after being press-copied.]

Upon the receipt of additional evidence the case is again examined, in connection therewith, and approved, again suspended, or held for cancellation, as may be necessary. Frequently several such examinations are required before the entry is finally disposed of by the issue of patent or cancellation. If no appeal is filed within the time prescribed by the rules of practice from a decision holding the entry for cancellation, the entry is canceled and the cancellation is noted on the records of this office, and the register and receiver are notified thereof by letter, in which they are instructed to note the cancellation on their records and notify the parties in interest.

From final action by this office upon any point involved in a case, at any stage of the proceedings, the case may go to the Secretary of the Interior on appeal and be afterwards disposed of according to his decision. At all stages notice of action is given to the parties in interest or their attorneys of record. Where appeal is taken, under the rules, a letter is prepared, with a schedule of all the papers, and the entire record is forwarded to the Secretary for his examination.

(5) A contest case is one in which, because of conflicting claims, a hearing has been ordered and testimony taken before or under the direction of the register and receiver.

The entire record, including the testimony, exhibits, and all papers relating to claims involved, is forwarded to this office with the decision of the register and receiver.

When reached in its regular order the case is given to an examining clerk, who examines the whole record, the testimony frequently covering several hundred pages, and prepares a decision, addressed to the register and receiver, upon the law and the facts, which is approved and signed as above described. Parties in interest are notified, and appeal to the Secretary of the Interior may be taken under the rules of practice. When a final decision is made by the Secretary, or a decision of this office becomes final by failure to appeal, the case is regularly closed by letter to that effect, addressed to the register and receiver, the parties in interest are notified, and the papers are then placed in the closed contest files.

(6) Quasi-contests are those cases in which an appeal is taken from the refusal of the register and receiver to allow application to be filed or entry to be made for certain land, or from a decision of the surveyor-general relating to survey. As there are no contesting parties, the matter is one between the Government and the appellant.

When a quasi-contest is reached in its regular order it is assigned to an examining clerk for action, and a letter in the nature of a decision is prepared, as above described in case of a contest, after thorough examination of the papers and records. Appeal may be taken, as in contests, and the case is similarly closed upon final decision.

(7) Entries of public lands, under other than the mining laws, are assigned to other divisions of this office for examination and action. Where, in the course of such examination, it is discovered that the land was returned as mineral upon official survey, that affidavits alleging the mineral character of the land have been filed, or that any portion of the land is claimed under the mining laws, the entry is referred to this division for adjudication as to the mineral question.

Upon its receipt it is entered upon the docket of agricultural entries involving mineral questions and assigned to an examining clerk, who makes a thorough investigation of the facts as disclosed by papers on file, entries and notations on the tract-books, the connected diagrams and the plats and field-notes of official surveys. If it regularly appears that the land is non-mineral an indorsement to that effect is made upon the papers by the examining clerk, over his initials, and the case is returned to the division from which it was referred. In other cases a letter is prepared by the clerk, and approved and signed as above described. Such letter may order a hearing to determine disputed facts, may require affidavits showing the non-mineral character of the land, or, where the law or regulations requiring notice of the claim have not been complied with, may return the papers for such notice to be given. Appeals lie from final decisions to the Secretary of the Interior, and the matter is finally closed in this division by the return of the entry to the division referring it, indorsed with the action here taken, or by the cancellation of the entry after due notice to parties in interest.

(8) Where a list of selections made by a railroad company under a Congressional grant includes lands situated in regions known to contain minerals, and subject to disposal under the mining laws, such list is referred by the railroad division to this division before patenting, for adjudication as to the mineral questions involved. Each list contains, as a rule, many thousand acres, and each smallest legal subdivision embraced therein is examined, in connection with the tract-books, plats, returns, &c., in the same manner and with the same care as in case of an agricultural entry, described above.

If necessary to determine the character of the land, additional evidence is required or a hearing before the register and receiver ordered. If any of the land is found to be mineral and not subject to the grant, the railroad claim is to that extent rejected by formal decision addressed to the register and receiver, and due notice is given to the company. From such decision appeal may be taken to the Secretary.

(9) Miscellaneous matters, including petitions for suit by the United States, coal D. S. relinquishments, questions submitted by the register and receiver or surveyor-general for instructions, &c., are regarded as current business and are taken up at once for examination and action.

Where a petition for the institution of suit to set aside a patent is received, either by reference from the Secretary of the Interior or from the Attorney-General of the United States through the Secretary of the Interior, it is considered in connection with the record in the patented case, particular regard being had to the following points: Whether the affidavits accompanying the petition are sufficient to overthrow the presumption arising from the evidence filed in the case during the regular course of the proceedings; whether the United States have any present interest in the matter; whether the rights of innocent purchasers have intervened; whether the petitioner has an adequate remedy by private suit; and, if so, whether he may not properly be left to seek such remedy; whether there is a probability of a suit by the Government being successful; and whether, in view of all the circumstances, it would be good policy for the Government to attack the title it has granted.

The whole matter having been carefully investigated by an examining clerk, to whom the petition has been referred by the chief of division, he prepares a report, addressed to the Secretary of the Interior, approved and signed as above described, stating the facts in full, and either recommending or not recommending the institution of suit as prayed. The report is press-copied in a special press-copy book, copied into a special permanent record, and forwarded to the Secretary, with the petition and accompanying papers. Such letter being regarded as a confidential communication to the Secretary, notice thereof is not given by this office to the parties interested.

(10) By far the greater number of mineral claims are surveyed in more or less irregular tracts which have no conformity to the general system of public surveys. A mineral survey is frequently overlapped by half a dozen or more conflicting surveys. In order to prevent confusion and avoid disposing of the same land under different laws or more than once under the same law, it becomes necessary, therefore, to have connected diagrams, showing the situation of the mining claims as officially surveyed, with reference to other mining claims and, where the public surveys have been extended over the land, with reference to the legal subdivisions of those surveys. This compilation must be continually revised and amended, so as to show the changes made by resurveys and the additions made by new mineral surveys and the sales of mineral lands. This work requires the best services of skilled draughtsmen.

(11) All mineral patents are prepared in and issued from this division.

After an entry has been regularly approved and turned over to the board in charge of the issue of mineral patents, as before indicated, the case is assigned to a clerk who, from data found in the papers, writes the draft of the patent, the description of the property to be conveyed being generally obtained from official field-notes of survey approved by the United States Surveyor-General.

For every draft of a patent prepared, except in the very rare cases of entries made by legal subdivisions, a copy of at least one official plat must be made. After the draft is prepared it is examined in connection with the papers in the case by said board, and any errors found are pointed out and the necessary corrections made. Where copy of official plat is made it is also examined by this board for the purpose of determining the accuracy of the lines with reference to courses and distances and conflicts with intersecting lines and claims. If found correct in all respects by said board the draft of the patent is properly numbered. Letters are then prepared and submitted to the Commissioner for his signature, addressed to the "President's secretary to sign land patents" and the Recorder of the General Land Office, requesting their signatures to said draft of the patent. After these letters have been signed they are sent to said officers, and the draft of the patent is at the same time submitted to them by the Commissioner for their signatures.

(12) Upon its return to this division, signed and sealed, the patent is recorded in full in the official record of mineral patents, and the board then compares the record with the patent.

The plat for the patent and the copy made in the record are made by draughtsmen. The patent records are indexed by the recording clerks, both by names of claims and of claimants.

(13) The patent is then sent to the register and receiver for delivery to the person surrendering the duplicate receiver's receipt, unless the receipt should previously have been filed in this office, in which case the patent is forwarded directly to the person who filed it or to such address as he may have indicated.

(14) Certified copies of papers, plats, or records on file in this division are made by a copyist or draughtsman, or both, and compared by the board above mentioned. A certificate properly describing the exemplification is then prepared by an examiner and attached to the copy, and with an accompanying letter of transmittal is submitted to the chief of division, the board of law examiners, and signed by the commissioner. The certificate and letter are then press-copied and the copy, with certificate attached, is sent to the recorder's division that the seal of the office may be attached. Upon its return the letter and certified copy are mailed.

(15) A large amount of current correspondence is answered in this division, consisting of inquiries in regard to the status of cases, general inquiries under the mining laws, &c. The letters are assigned by the chief of division to the docket or file clerk or an examining clerk for answer, which frequently involves extended search of the records. Proper inquiries are carefully answered by letter. Such letters to private individuals, if the letter is of sufficient importance, are recorded in the permanent records from the press copy. Action upon relinquishments, requests for instructions, &c., is taken by an examining clerk by letter. Particular care is required in issuing instructions to registers and receivers or surveyors-general.

Case of the application of H. A. W. Tabor et al., for patent upon the Maid of Erin Lode mining claim, filed in the Leadville, Colorado, land office on February 5, 1880. Proceedings therein, given as a sample item.

December 4, 1880. Letter dated November 29, 1880, received from register at Leadville, inclosing protest of S. G. Wight *et al.* owners of the Vanderbilt Lode mining claim, against issuing a patent upon the Maid of Erin application, alleging failure to comply with the law in the matter of (1) discovery of mineral, (2) sinking a discovery shaft and (3) marking and describing the boundaries of the location. Sent to the registering room and numbered 1880-76278, indexed in index volume 53, at page 92, registered in register and receiver volume 15, Leadville office, and sent to the mineral division (N). Assigned by D. K. Sickels, a clerk of class four designated as chief of division, to himself for action, and handed to the docket clerk, entered by him in the division register of letters received, vol. 6, page 61, and given to said Sickels.

[NOTE.—All other letters hereinafter mentioned as received at this office were similarly treated prior to their receipt in this division, and such action by the registering room, which is a part of another division, will not, therefore, be described.]

December 30, 1880. Letter prepared by Sickels, returning protest to register and receiver and ordering a hearing to determine the facts upon the points mentioned therein. Initialed by him as chief of division, examined by board of letter reviewers, signed by the Commissioner, copied in press copying book, copied therefrom by a copyist into the permanent record of letters sent, vol. 37, page 484, and mailed. Letter from register, indorsed with a statement of action taken, returned to docket clerk and by him placed in the files, after noting action on register of letters received.

December 31, 1880. Letter prepared by Sickels, advising A. W. Rucker, protestants' attorney, of above action. Initialed by Sickels as chief of division, examined by board of law examiners, signed by the Commissioner, press copied, copied into permanent records and mailed.

January 11, 1881. Letter dated January 5, 1881, received from register, acknowledging receipt of office letter of December 30, 1880. Designated 1881-2171 by registering room. Assigned by chief of division to himself, entered by docket clerk, as above, examined by Sickels and returned by him to docket clerk to be placed in the files without answer, none being required.

July 12, 1881. Letter dated July 6, 1881, received from register, forwarding record of hearing, 21 papers, including 76 pages of closely printed testimony. Designated as 1881-45856 in registering room. Entered by docket clerk in register of letters received, and also, because hearing had been had, entered on contest docket, vol. 5, page 84, No. 98. Inclosed in a jacket indorsed "Contest No. 98, Vanderbilt Lode v. Maid of Erin Lode, Leadville, Colorado," handed to the file clerk and by him placed in the files of contests awaiting examination.

[NOTE.—Each letter received in the case, after this, was assigned to some clerk by the chief of division and entered by the docket clerk both upon the register of letters received and upon the contest docket.]

July 15, 1881. Letter dated July 10, 1881, received from A. W. Rucker, Leadville, requesting oral argument in the case. Designated as 1881-46794. Assigned to Sickels.

July 31, 1881. Telegram received from Rucker, asking argument on August 15, 1881. Designated as 1881-50625. Assigned to Sickels.

August 1, 1881. Telegram to Rucker prepared by Sickels, initialed by him as chief of division, signed by commissioner, press copied, copied into permanent records, and taken to telegraph office, stating that instructions would be sent by mail. Action indorsed on telegram from Rucker, which was then given to docket clerk for filing with ease.

[NOTE.—The regular action in case of each communication from this office regarding the contest is, after the letter is signed, as follows: Copied in press-copy book and mailed, copied therefrom by copyist into permanent records, action noted upon the letter replied to and the contest jacket by the clerk who prepared the letter or telegram. All papers handed to docket clerk, who notes the action upon the contest docket and register of letters received, and hands the papers to the file clerk, who places them in the files. Such action will not, therefore, be recapitulated in case of each letter in the following description.]

August 1, 1881. Letter dated July 30, 1881, received from E. C. Ford, city, entering his appearance as attorney for Tabor *et al.* Designated as 1881-50549. Assigned to Sickels.

August 2, 1881. Letter prepared by Sickels, initialed by him as chief of division, examined by board of law examiners, and signed by Commissioner, addressed to Ford, acknowledging receipt of his appearance.

August 2, 1881. Letter prepared by Sickels, initialed by him as chief of division, examined by board of letter reviewers, and signed by the Commissioner, addressed to Rucker, pointing out the procedure by which, under the rules of practice, he might obtain oral argument.

August 17, 1881. Letter (1881-54450) dated August 9, 1881, received from Rucker, giving notice of argument on August 24, 1881. Assigned to Sickels and filed with case without action.

September 5, 1881. Letter (1881-58762) dated September 1, 1881, received from Rucker, inclosing argument. Assigned to Sickels and filed with case without answer.

September 24, 1881. Letter (1881-62481) dated September 13, 1881, received from Rucker, asking to be informed by telegraph of action when taken. Assigned to Sickels and filed with the case without answer.

September 29, 1881. Argument (1881-63425) dated September 20, 1881, received from Ford. Assigned to Sickels and filed with case without answer.

October 29, 1881. Telegram (1881-70229) received from Rucker, asking that decision be withheld until his arrival. Filed with case without answer.

November 9, 1881. The whole record having been examined by Joseph Tyssowski, a clerk of class 3, a decision 36 pages in length, addressed to the register and receiver, was prepared by him, initialed by the chief of division, examined by the board of law examiners, and signed by the Commissioner. This decision reviewed the testimony and held, as matter of fact, that the protestants had not substantiated their allegations, and, as matter of law, that the evidence introduced to show superior rights in the Vanderbilt location could not then be considered, under the statute, the sixty days within which adverse rights could be asserted having expired, that a discovery of mineral in the so-called "Discovery Shaft" is not essential, if discovery is made within the boundaries of the claim before adverse rights have attached, and that an error in the description in the location notice, which is not misleading, does not render the location void, and for these reasons dismissed the protest.

November 9, 1881. Letter similarly prepared, approved, and signed, addressed to Rucker, advising him.

November 9, 1881. Letter similarly prepared, approved, and signed, addressed to Ford, advising him.

- November 29, 1881. Letter (1881-76942) dated November 23, 1881, received from register, forwarding nineteen papers relating to mineral entry No. 834, which had that day been allowed by the register at the land office at Leadville, upon the Maid of Erin application, assigned to the docket clerk, entered upon register of letters received, noted on contest docket, handed to file clerk, entered on register of mineral entries from Leadville and upon general docket of mineral entries, No. 3511, jacketed, and filed with mineral entries awaiting examination.
- December 1, 1881. Motion (1881-77548) and affidavits, thirty-five papers, received from Rucker, asking review and reconsideration of office decision, alleging that said decision is contrary to the law and Department decisions, and against the evidence in the case; that illegal, improper, and perjured evidence was considered and that evidence has been newly discovered; also asking that additional testimony be taken, because the condition of the property at the time of the hearing did not allow a full examination thereof; that the testimony taken by the stenographer was not wholly correct, and that abandonment of the Maid of Erin location could be shown. Assigned to Tyssowski.
- December 2, 1881. Argument (1881-77744) dated December 1, 1881, filed by Ford against said motion. Assigned to Tyssowski.
- December 3, 1881. Brief (1881-78027) filed by Rucker in support of said motion. Assigned to Tyssowski.
- December 3, 1881. Letter prepared by Tyssowski, addressed to Rucker, initialed by chief of division, examined by board of letter reviewers, and signed by the Commissioner, overruling the motion for review, because a new trial will not be granted, under the rules of law, on the ground that the verdict was against the weight of the evidence if there was some on both sides which was contradictory; that a re-examination of the testimony shows no error, and that protestants were estopped from questioning the correctness of the testimony by the previous stipulation of Rucker that it should be treated as regular and correct; also denying the motion to take further testimony, because it is not shown that the additional evidence could not, with due diligence, have been presented at the former hearing, and such evidence would be merely cumulative.
- December 3, 1881. Letter similarly prepared, approved, and signed, inclosing copy of said ruling to register and receiver.
- December 3, 1881. Letter similarly prepared, approved, and signed, advising Ford of said ruling.
- December 6, 1881. Appeal from office decisions to the Secretary of the Interior (1881-78921) filed by Rucker. Referred to Tyssowski.
- December 6, 1881. Letter prepared by Tyssowski, addressed to the register and receiver, initialed by chief of division, examined by board of law examiners, and signed by the Commissioner, declining to entertain said appeal on the ground that a protestant has no right of appeal.
- December 6, 1881. Separate letters, similarly prepared, approved, and signed, addressed to Rucker & Ford, advising them of this action.
- December 21, 1881. Communication (1881-82700) dated December 20, 1881, received from the Secretary of the Interior, stating that the protestants have filed in the Department a motion for a certiorari, and directing that the papers in the case be certified and forwarded. Assigned to F. P. McDermott, a clerk of class 1.
- December 23, 1881. Letter prepared by McDermott, addressed to the Secretary of the Interior, initialed by chief of division, examined by board of law examiners, and signed by the Commissioner, forwarding papers as directed, properly scheduled.
- December 23, 1881. Separate letters, similarly prepared, approved, and signed, addressed to Rucker and Ford, advising them of such action.
- January 20, 1882. Decision (1882-5556) dated January 18, 1882, received from the Secretary, directing that a rehearing be had, that all the facts may be fully before the Department, and limiting the testimony to be taken at such hearing to "the discovery of mineral upon the claim of the Maid of Erin lode, or in its discovery shaft, prior either to the date of its location or of its relocation." Assigned to Tyssowski.
- January 23, 1882. Letter prepared by Tyssowski, addressed to register and receiver, inclosing a copy of said decision and ordering a rehearing thereunder. Initialed by chief of division, examined by board of law examiners, and signed by Commissioner.
- January 23, 1882. Separate letters, similarly prepared, approved, and signed, addressed to Rucker and Ford, advising them of such action.
- March 17, 1882. Letter (1882-22407) dated March 17, 1882, received from Thos. H. Sherman, city, asking to be notified when notice of hearing is received. Assigned to Tyssowski and filed with the case.
- March 23, 1882. Letter (1882-23997) dated March 18, 1882, received from register, asking instructions relative to hearing and desiring the return of the testimony taken at former hearing. Assigned to Tyssowski.
- March 25, 1882. Letter prepared by Tyssowski, addressed to register and receiver, initialed by chief of division, examined by board of law examiners, and signed by the Commissioner, returning testimony as requested, and instructing the local officers that they cannot exclude evidence that either party may desire to introduce, but that such evidence should be received subject to objection under the ordinary rules of evidence, also that their decision should be based only upon that testimony which is regarded by them as material to the issue.
- May 8, 1882. Letter (1882-36323) dated May 3, 1882, received from register, forwarding stipulation of attorneys that record may be forwarded immediately to the General Land Office. Filed with case.
- May 9, 1882. Letter (1882-36629) dated May 2, 1882, received from register and receiver, forwarding record and testimony (248 closely printed pages) taken at the rehearing had before them. Assigned to Tyssowski.
- May 11, 1882. Separate letters, prepared by Tyssowski, initialed by chief of division, examined by board of letter reviewers, and signed by Commissioner, addressed to Ford, Rucker, and Sherman, advising them of receipt of testimony.
- June 10, 1882. Argument (1882-46110) received from Rucker and Belford and Reed. Filed with case.
- June 17, 1882. Argument (1882-48127) dated June 16, 1882, received from Ford. Filed with case.
- June 20, 1882. Argument in reply (1882-48862) dated June 20, 1882, received from Rucker. Filed with case.
- June 30, 1882. Letter (1882-51755) dated June 20, 1882, addressed to the Secretary of the Interior by Hon. J. B. Chaffee, urging a final decision, received at this office by reference from the Department. Filed with case.
- July 6, 1882. Decision prepared by D. K. Sickels, addressed to register and receiver, initialed by him as chief of division, examined by board of letter reviewers, and signed by Commissioner, holding that it was incumbent upon the protestants to show that mineral was not discovered within the limits of the claim prior to the location or the relocation, and that the applicants for patent had acted fraudulently in making the location and subsequent proofs, but that examination of the testimony taken at both hearings does not show those facts, and, therefore, dismissing the protest.

- July 6, 1882. Separate letters, similarly prepared, approved, and signed, addressed to Chaffee, Sherman, Ford, Rucker, and Belford, advising them of such action.
- July 12, 1882. Appeal from decision last mentioned (1882-54789), filed by Rucker and Reed, alleging a number of errors of law and fact. Assigned to Sickels.
- July 12, 1882. Decision, addressed to the register and receiver, prepared by Sickels, initialed by him as chief of division, examined by board of law examiners, and signed by Commissioner, declining to entertain the appeal on the ground that protestants have no right of appeal.
- July 12, 1882. Separate letters, similarly prepared, approved, and signed, addressed to Ford, Sherman, and Chaffee, and Rucker and Reed, advising them of such action.
- July 13, 1882. Communication (1882-55004) dated July 12, 1882, received from the Secretary of the Interior, inclosing application for certiorari by protestants and directing that the record be certified to the Department. Assigned to H. F. Clark, a copyist at \$900, acting as file clerk.
- July 15, 1882. Letter prepared by Clark, addressed to the Secretary of the Interior, initialed by chief of division, examined by board of law examiners, and signed by the Commissioner, forwarding papers as directed, properly scheduled.
- July 15, 1882. Separate letters, similarly prepared, approved, and signed, addressed to the register and receiver, and Sherman, Ford, Rucker, Belford, and Chaffee, advising them of such action.
- September 13, 1882. Letter (1882-71764) dated September 11, 1882, received from E. C. Ford, inclosing duplicate receiver's receipt and asking that patent be sent to his address. Assigned to Mrs. Nellie Rapley, a copyist at \$900, acting as docket clerk.
- September 15, 1882. Letter prepared by Mrs. Rapley, addressed to Ford, initialed by Jos. Tysowski, acting chief of division, examined by board of law examiners, and signed by the Commissioner, acknowledging receipt of preceding letter and inclosure.
- February 23, 1883. Letter (1883-17422) dated February 23, 1883, received from E. C. Ford, asking the return to him of said duplicate receipt. Assigned to H. F. Clark, a clerk of class 1.
- February 23, 1883. Letter prepared by said clerk under instructions from chief clerk, initialed by acting chief of division, examined by board of law examiners, and signed by the Commissioner, returning the duplicate receipt to Ford.
- March 22, 1883. Decision (1883-26535) dated March 19, 1883, received from Secretary of the Interior, directing another rehearing in the case, because the Vanderbilt owners had suppressed evidence by refusing to witnesses access to the working shaft on the claim, and directing that the Vanderbilt parties be notified that if they refuse access to that shaft their protest will be dismissed. Special inquiry was directed, first, as to "when the Maid of Erin claimants discovered mineral outside of their discovery shaft, and within the boundaries of their claim, and at what point; second, when the Vanderbilt claimants discovered mineral within the boundary of their claim, and at what point; and third, when the Vanderbilt claimants discovered mineral within the boundaries of the Maid of Erin claim." Assigned to A. C. Barnes, a clerk of class 3.
- March 27, 1883. Letter prepared by Barnes, addressed to register and receiver, initialed by Jos. Tysowski, a clerk of class 4, acting as chief of division, examined by board of law examiners, and signed by the Commissioner, inclosing a copy of the Secretary's decision and ordering a rehearing thereunder, as directed.
- March 27, 1883. Separate letters, similarly prepared, approved and signed, addressed to Rucker, Ford and Sherman, advising them of such action.
- February 16, 1884. Decision (1884-18394) dated February 15, 1884, received from the Secretary of the Interior, to whom the testimony (221 closely written pages) taken at the third hearing before the register and receiver had been directly forwarded, holding that by the failure of the Vanderbilt claimants to adverse the application of the Maid of Erin they admitted that they had no right to the property and cannot now be heard to set up either an equitable or legal title to the premises called the Maid of Erin claim; that mineral need not be found in the "discovery shaft" of the Maid of Erin, and that mineral had been discovered in the "working shaft" before the relocation; that he finds no failure on the part of the applicants to conform to the provisions of the law concerning the entry of mineral lands, and, therefore, dismissing the protest and sustaining the entry. Assigned to Duane E. Fox, a clerk of class 2.
- February 16, 1884. Letter prepared by Fox, addressed to the register and receiver, initialed by chief of division, examined by board of law examiners, and signed by the acting commissioner, inclosing a copy of said decision of Secretary, and directing that parties be notified.
- February 16, 1884. Separate letters, similarly prepared, approved, and signed, addressed to Ford, Rucker, Belford, Reed, Rockwell, Sherman, Elihu Root, and O. H. Harker, advising them of such action.
- February 16, 1884. Entry and papers assigned to C. A. Boynton, a clerk of class 4, for examination of the records and the evidence upon which the entry was allowed.

NOTE.—The examination of a mineral entry involves a careful scrutiny of the papers filed in connection with the records of this office, particular attention being devoted to the following points:

- (1) Citizenship of the claimants, and, in case of an incorporated company, evidence of the incorporation.
- (2) Authority of agents.
- (3) Regularity and validity of the location and evidence showing the discovery of minerals.
- (4) Transfers of title under the location, extending down to date of application or entry.
- (5) Evidence that a plat and a notice of the application for patent were conspicuously posted upon the claim, that the same remained so posted thereon for the statutory period of sixty days, and that proper notice was likewise posted in the local land office and published in a newspaper, as required by law, for the same period, and the sufficiency of such notices.
- (6) Sufficiency of the agreement of the publisher to hold the applicants for patent alone responsible for charges of publication.
- (7) Sworn statement of all charges and fees paid by applicants for publication and surveys and of all fees and money paid to register and receiver.
- (8) Receiver's receipt for money paid by claimants, properly describing the claim as entered.
- (9) Regularity of register's certificate of entry.
- (10) Amount expended by claimants and their grantors in developing the claim and sufficiency of certificate of surveyor-general showing the expenditure of \$500 upon the claim.
- (11) Adverse claims filed against the application by owners of other claims and evidence showing the manner in which the controversy has been terminated, whether by judicial decision in a suit under the statute, or by abandonment, exclusion, partition, or otherwise.
- (12) Conflicts with rights which have attached under any other laws of the United States relating to the disposal of the public lands, as well as under the mineral laws, the most frequent conflicts being with State and railroad grants, homesteads, pre-emptions, town-sites and timber entries and scrip locations.

- (13) In case of mill-site entry, evidence that the land is non-mineral is also required.
- (14) In case of placer entry, specific evidence is also required as to the character of the land, character and extent of all surface and underground workings, whether placer or lode, nature, situation, extent, and value of improvements, and proximity of centers of trade or residence, lodes, or systems of lodes, mill-seats and salt-springs, &c.
- (15) The official plat and field-notes of the survey, its regularity and correctness, and whether it accurately shows the boundaries of the claim as entered and the rights of claimants, acquired by location, as modified by subsequent transfers, abandonment, adverse proceedings, failure to adverse or otherwise.
- (16) Protests, alleging that the claimants have failed in one or more particulars to comply with the law. If a protest has been filed, sufficient in form and substance, and a hearing is necessary to determine the disputed facts, an order is sent to the register and receiver to institute such hearing. Testimony is then taken, after due notice to all parties, upon which the register and receiver render a decision and forward the case to this office for examination and action. Hearings may also be ordered without protest if examination of the record shows that such action is necessary in order to determine conflicting rights or the regularity of the proceedings. From the decision of the local officers or of this office appeal may be taken. A protest, if considered insufficient, is dismissed by letter.
- February 16, 1884. Evidence and case examined by Boynton, and jacket indorsed by him "Proof approved, February 16, 1884, C. A. B.," and handed to A. L. Pitney, a clerk of class two, for examination as to survey.
- February 16, 1884. Survey of claim examined by Pitney, and letter prepared by him addressed to the United States surveyor-general for Colorado, initialed by chief of division, examined by board of law examiners, and signed by Acting Commissioner, returning the plat and field-notes for amendment of survey, so as to show the exclusion of the surface ground in conflict with the "Clontarf lode" claim, in pursuance of relinquishment filed by the Maid of Erin owners.
- February 16, 1884. Letter similarly prepared, examined, and signed, addressed to Ford, advising him of such action.
- February 18, 1884. Letter (1884-19019) dated February 18, 1884, received from E. C. Ford, requesting certified copy of Secretary's decision of February 15, 1884. Assigned to Clark.
- February 18, 1884. Letter prepared by Clark, addressed to Ford, inclosing copy as requested and stating the charge therefor to be \$5. (Paid.) Initialed by chief of division, examined by board of law examiners, and signed by the Commissioner.
- February 19, 1884. Letter (1884-19593) dated February 19, 1884, received from Ford requesting another certified copy of said decision. Assigned to Clark.
- February 20, 1884. Letter prepared by Clark, addressed to Ford, inclosing copy as requested, and stating the charge therefor to be \$5. (Paid.) Initialed by chief of division, examined by board of law examiners, and signed by the Commissioner.
- March 4, 1884. Letter (1884-24188) dated February 26, 1884, received from surveyor-general, forwarding amended plat and field-notes, showing Clontarf exclusion. Assigned to Pitney.
- March 5, 1884. Jacket of case indorsed by chief clerk: "Let the patent in this case issue at once. L. H. March 5, 1884"
- March 5, 1884. Telegram addressed to surveyor-general, prepared by Pitney, initialed by chief of division, examined by board of law examiners, and signed by Acting Commissioner, directing a new plat to be prepared showing exclusion of Clontarf claim and having surveyor-general's certificate attached, dated February 25, 1884, the date of amendment.
- March 5, 1885. Letter, similarly prepared, approved and signed, addressed to surveyor-general, directing restoration of the original plat to its condition before amendment and inclosing it.
- March 7, 1884. Decision (1884-26028) dated March 6, 1884, received from Secretary of Interior denying motion for review of his decision of February 15, 1884, because (1) protestants have no standing before the Department as litigants, and consequently there is no issue between them and the claimants, and (2) no issue having been made before the Department assignments of error upon a refusal of the Secretary to reverse the Commissioner's decision, brought before him by *certiorari*, are meaningless. Assigned to Fox.
- March 8, 1884. Letter prepared by Fox, addressed to the register and receiver, promulgating said decision, initialed by Boynton as acting chief of division, examined by board of law examiners, and signed by Acting Commissioner. This letter, with the following letters of notification, closed official action upon the case as a *contest*, and the papers, excepting those relating to the mineral entry as an *ex parte* case, were placed in the closed contest files and the decisions of the Secretary in separate files.
- March 8, 1884. Separate letters, similarly prepared, approved and signed, addressed to Ford, Rucker, Belford, Root, Harker, Reed, Rockwell, and Sherman, advising them of said action.
- March 8, 1884. Letter prepared by Pitney, initialed by chief of division, examined by board of law examiners, and signed by Commissioner, addressed to Ford advising him of letter of March 5, 1884, to surveyor-general.
- March 11, 1884. Letter (1884-27168) dated March 6, 1884, received from surveyor-general, forwarding approved plat of survey. Assigned to Pitney.
- March 12, 1884. Papers relating to survey examined by Pitney and jacket of the case indorsed by him—"Survey approved 12, 1884. A. L. P." Papers given to Miss C. A. Hollingsworth, a clerk, at \$1,000, who on the same day prepared, from data found in the official survey, a description of the property to be conveyed by the patent. From this the draft of a patent was prepared by a patent writer. At the same time a draughtsman was preparing two copies of official plat, one of which was inserted in the draft of the patent, and the other reserved for insertion in the record of the patent.
- March 13, 1884. Letter prepared by Pitney, initialed by acting chief of division, examined by board of letter reviewers and signed by Acting Commissioner, addressed to Ford, advising him that the mineral entry has been "passed for patent."
- March 14, 1884. Letter prepared by Mrs. E. E. Pearce, a clerk of class one, inclosing the draft of the patent, numbered 8978, with others, to Wm. H. Crook, President's secretary to sign land patents, requesting his signature. Initialed by acting chief of division, examined by board of law examiners and signed by Acting Commissioner.
- March 14, 1884. Letter, similarly prepared, approved and signed, addressed to S. W. Clark, recorder of the General Land Office, requesting his signature to this and other patents.
- March 15, 1884. Letter (1884-28964) dated March 10, 1884, received from surveyor-general, returning restored plat of claim. Assigned to Pitney and filed with case without answer.
- March 17, 1884. The patent duly signed by the President's secretary and the recorder having been returned to this office, it was recorded in full by a copyist in the record of mineral patents, vol. 107, p. 341, and a copy of the plat was inserted in the record.

March 19, 1884. Letter prepared by Mrs. Pearce, initialed by chief of division, examined by board of letter reviewers, and signed by Commissioner, transmitting said patent to the register and receiver for delivery to the person surrendering the duplicate receiver's receipt. This closed action upon the case in this office.

In addition to the proceedings stated above, case was argued orally at great length before the Commissioner of the General Land office.

It appears also from the papers (1884-41706) received from the Secretary of the Interior on April 19, 1884, and filed with the case, that the Vanderbilt owners applied to the Attorney-General of the United States, praying the institution of suit by the United States to set aside the patent. The papers having been referred by the Attorney-General to the Secretary of the Interior for examination and recommendation, Secretary Teller, by letter of April 16, 1884, to the Attorney-General, reviewed the proceedings in the case, showing that the protestants have had all the opportunities to present their case before the Department that could have been accorded to litigants, but have failed either to establish a title to the premises or to show that the Maid of Erin proprietors are not entitled to their patent, and holding that the United States has now no interest in the property and should not interfere for the purpose of determining property rights between individuals or disturb the rights acquired by patent granted after full consideration of the questions involved. What action was taken thereon by the Attorney-General does not appear from the record.

Attached hereto is a plat showing the Maid of Erin claim as patented and also a tracing showing its situation with reference to the Vanderbilt and Clontarf surveys.

[NOTE.—The adjudication of a mineral entry rarely involves proceedings so extended as in the Maid of Erin case. The history of this case is given to illustrate the many difficulties that may arise in the adjudication of an ordinary mineral entry and to show the action taken where protests are filed and a contest is initiated. Cases frequently arise involving one or more similar questions; and the adjudication of some cases presents even greater difficulties than case described.]

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending and undisposed of at the dates specified below, in the mineral (N) division of the General Land Office, Department of the Interior:

Character of business.	Pending July 1, 1883.	Received in 1884.	Disposed of in 1884.	Pending July 1, 1884.	Received in 1885.	Disposed of in 1885.	Pending July 1, 1885.	Received in 1886.	Disposed of in 1886.	Pending July 1, 1886.	Received in 1887.	Disposed of in 1887.	Pending Mar. 1, 1887.
Suspended mineral and coal entries.	1,386			1,350			1,379			2,184			
Unexamined mineral and coal entries.	1,085	2,060		1,707	1,617		2,726	1,392		2,658	1,047		
Total.	2,471		1,704	3,057		547	4,105		708	4,842		975	5,012
Contest cases not closed.	*174	94	89	†219	119	77	281	54	50	221	51	58	214
Quasi contests not closed.							40	61	6	95	24	55	64
Suspended agricultural entries involving mineral questions.				50			†230			†108			
Unexamined agricultural entries involving mineral questions.				90	191		101	136		65	39		
Total.				140		230	331		402	173		144	68
Number of letters received and docketed.		6,696			5,442			5,562			4,714		
Number of letters written.			5,964			4,674			5,766			4,403	
Number of pages of letter record written.			5,782			3,043			4,379			2,883	

* Not docketed, 40.

† Old, not docketed, 20.

‡Suspended.

The small amount of mineral and coal patents issued in 1885 is largely accounted for by the condition of the examining force in that year.

There were also pending March 1, 1887, railroad lists referred to this division for examination, including the mineral character of 486,822.48 acres.

The number of suspended mineral and coal entries pending July 1, 1883, is given in the above statement as about 1,386, which is taken from the annual report for the fiscal year ending June 30, 1883. From later official reports it now appears that the number of such cases then pending must have been underestimated to the extent of

Except for the item above shown, no monthly account has been required or kept in this division from which a correct statement of the amount and character of business performed, transacted, and disposed of during the periods specified, can be prepared. It is, therefore, impracticable, except as above, to give the information called for.

The following statement shows the average number of employés in the mineral division of the General Land Office, Department of the Interior, during the periods specified:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884	33	33	33	31	31	31	31	32	33	31	25	23
1885	23	23	23	23	23	24	24	24	25	25	25	26
1886	27	27	27	27	27	29	30	30	30	30	30	29
1887 (to March).....	30	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

During the fiscal year 1884 the number of *examining* clerks was one-third greater than in the fiscal year 1885. There were also in the division, during the fiscal year 1885, a number of clerks who were being instructed in the duties of examining clerks, and whose work had to be re-examined in detail by the regular examiners.

The work performed in this division consists of fifteen distinct classes, some of which are of technical or professional character. With scarcely an exception, each clerk has been engaged, from time to time, on several different classes. As no record from which such information can be obtained was kept or required, it is now impossible to furnish the information indicated on this heading.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the mineral division of the General Land Office, Department of the Interior:

Year.	Average number of employés.	Average number of days present.	Average number of hours employed daily.	Number of working days.	Average days absent.
1884	30.58	265.62	7	307	41.38
1885	24	274.92	7	301½	26.58
1886	28.58	275.91	7	305	29.09
1887 (to March 1)	30	47.12	7	48	.88

The official day is from 9 to 4 (seven hours), but there is allowed to the employés thirty minutes, from 12 m. to 12.30 p. m., for lunch, which is almost invariably availed of, which would bring the average hours of attendance to not exceed six and one-half hours.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the mineral division of the General Land Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to Mar. 1).
Maximum number of days.....	300 $\frac{33}{28}$	286 $\frac{3}{28}$	291 $\frac{11}{28}$	189*
Minimum number of days	228 $\frac{2}{28}$	244 $\frac{17}{28}$	255 $\frac{6}{28}$	169

* For 2 months.

BOARD OF REVIEW (O) DIVISION.

Report of the board of review (O) division, General Land Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the board of review division O of the General Land Office, Department of the Interior.

[Division O, organized December 1, 1886.]

Principal.—Final homestead entries; commuted homestead (cash) entries; pre-emption (cash) entries; timber and stone land (cash) entries; desert-land entries; private (cash) entries; timber-culture entries.

Miscellaneous.—Town-site and town-lot entries; Osage Indian (cash) entries; Osage ceded (cash) entries; graduation (cash) entries.

Warrant and scrip locations entries of various Indian and military reservations placed in market by special acts.

Correspondence in relation to all cases while they are under the jurisdiction of the division.

Statement showing in detail the methods of transacting business in the board of review (O) division of the General Land Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the board of review (O) office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each until the same is finally disposed of and notice thereof duly given to the proper party.

EXPLANATORY.

Only such cases as the other divisions recommend for patent are sent to this division for final review. Those cases which other divisions suspend for any reason are by them canceled or held for amendment. When they recommend a case for patent they indorse the same "Recommended for patent and referred to division O. _____, division examiner."

Such cases are then sent to this division, and when received are receipted for to the division sending them, and are docketed in division O by their proper number under the land district to which they belong.

DISPOSITION OF CASES.

In disposing of cases in this division the local offices are taken up alphabetically, beginning with Aberdeen, Dak., and ending with Yankton, Dak. When any given office is reached the different classes of cases therein are distributed to the different examining clerks. The examiner makes an original examination of every paper in the case, noting the points, whether good or bad, on an "examination slip," which is always thereafter filed with the papers.

This examination is systematic, and in a pre-emption case is as follows:

"No. —, land district —. Description ("OK" or "bad") acreage, date of settlement, date of residence, length of residence, date of proof, date of certificate, improvements (description, value of), acres broken, crops raised, claimant's family, remarks. Recommendation (tabulate, suspend).

"_____,
Examiner."

After any given office has been examined, all cases marked "tabulate" by the examiner are supposed to be proper cases to go to patent, and are tabulated; that is, a clerk takes such cases and transcripts or abstracts the examination already made on a large sheet properly ruled, with proper headings, agreeing with points in examination slips, each sheet holding sixty cases.

Each class is tabulated separately, under the head of final homesteads, cash, timber culture, desert, &c.

When all the cases or any given class belonging to any office are thus extended on the abstract, the same is then examined by the chief of the division, and if in his judg-

ment the cases should be sent to patent, he recommends them for approval for patent under his signature.

If any case on said abstract be materially defective, the same is stricken from the abstract and referred back to the original division for amendment as indorsed by this division on the papers.

The abstract is then submitted to the two law clerks, chief clerk, and Assistant Commissioner, who either approve or disapprove the whole abstract or any particular case, as they think proper. Upon approval, it goes to the Commissioner for his approval for patent, which obtained, patent issues at once.

SUSPENDED CASES.

(1) Any case received from the other divisions, which, on full examination, is suspended by the examiner for vital defects or irregularities, is passed on also by the chief of division, and if he approves the suspension he indorses on the papers the defects and irregularities in same and returns it to the proper division for amendment.

(2) If from the face of the papers or on information filed in this office fraud is suspected in any case, the same is suspended and referred to division P (fraud division) for examination and report by a special agent in the field.

On his report the case is either returned to division O for approval for patent, no fraud being found, or division P orders a hearing, the result of which will decide the final action, which is then taken by division P.

BOARD CASES.

Such cases as should go to the board of equitable adjudication are examined, abstracted, and tabulated, and recommended in like manner as other cases, and on recommendation of the Commissioner are sent to said board for approval, which being done, they are returned to division O and at once sent to patent.

CORRESPONDENCE.

This division conducts the office correspondence touching all cases pending in the division.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below in the board of review, division O, of the General Land Office, Department of the Interior:

Character of business.	Pending Dec. 1, 1886.	Received from Dec. 1, 1886, to Mar. 1, 1887.	Disposed of from Dec. 1, 1886, to Mar. 1, 1887.	Pending Feb. 28, 1887.
All kinds of entries	39,572	1,793	1,811	39,554
All kinds of entries charged to the division actually pending, but not yet received in the division because of want of room.....		7,900		7,900

Correspondence in relation to all cases with the division, no record kept.

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employes in the board of review, division O, of the General Land Office, Department of the Interior:

All kinds of entries disposed of:

1886, December	604
1887, January	604
1887, February	604

Some cases were abstracted and ready to be disposed of on March 1, which did not leave the division until after that date, which accounts for the low average above indicated.

Experience has shown that a fair approximate average number of cases per month for a force of eleven employes to dispose of would be 1,750.

The following statement shows the average number of employés in the board of review, division O, of the General Land Office, Department of the Interior, during the periods specified :

1886, December	11
1887, January	12
1887, February	11

The division was organized November 29, 1886.

Owing to the great variety of entries coming before this newly organized division, many of which were intricate cases, long pending, and needing special examination, it was impracticable to so systematize the work of the clerical force to make possible an intelligent report of the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified in the board of review, division O, of the General Land Office, Department of the Interior.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the period specified, by the employés in the board of review, division O, of the General Land Office, Department of the Interior :

Year.	Number of employés, average.	Average number of days present, each clerk.	Average number of hours employed daily.	Number by proxy.
1886, December	11	.....	.....	.....
1887 (to March 1)	11	68	7	0

The average number of hours employed daily, includes 30 minutes allowed for lunch.

The average number of days each clerk was present is for the whole period, from December 1, 1886, to March 1, 1887, or 73½ working days.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the (board of review) O division of the General Land Office, Department of the Interior, during the periods specified :

To March 1, 1887 :

Maximum number of days	73½
Minimum number of days	62½

The division was not organized until December 1, 1886 (November 29), and the report is for the full period to March 1, 1887, or 73½ working days.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of from March 1 to April 1, 1887, in division O (board of review) of the General Land Office, Department of the Interior :

Character of business.	Pending Mar. 1, 1887.	Received to April 1.	Disposed of up to April 1, '87.	Pending Mar., 1887.
Final homesteads	11, 127	1, 748	832	12, 043
Cash entries (all kinds)	27, 154	103	3, 861	23, 396
Timber-culture finals	851	.....	355	496
Desert-land finals	260	3	41	222
Warrant locations	151	13	15	149
Graduation entries	5	.....	.....	5
Town-lot entries	6	.....	.....	6
Total	39, 554	1, 867	5, 104	36, 317

SPECIAL-SERVICE DIVISION.

Report of the special-service division, General Land Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the special-service division of the General Land Office, Department of the Interior.

Fraudulent entry branch :

- (1) Action upon fraudulent and illegal entries of public land.
- (2) Action upon unlawful inclosures of public land.
- (3) Preparation of copies of entry papers, &c., plain and certified for use in court, &c.

(4) Making general and special reports.

Timber-depredation branch :

- (1) Action upon complaints and reports of alleged depredations upon public timber.
- (2) Recording abstracts of all cases of alleged depredations upon public timber.
- (3) Making general and special reports.
- (4) Examination of agents' weekly reports.
- (5) Docketing instructions to agents and other officers.

General work for both branches :

(1) Giving personal instructions to special agents in their duties when appointed, and detailing them for duty in the field for which they are deemed best qualified ; also answering legal inquiries and furnishing status of cases to attorneys and other interested parties, which consumes much valuable time of the clerks in the division.

(2) Examining special agents' monthly salary and expense accounts in connection with their weekly reports.

(3) Registering mail received and all action taken thereon.

(4) The issuing of all transportation requests and requisitions for blanks and stationery for special agents.

(5) Preparing copies of official papers for the use of special agents, registers and receivers, United States attorneys, and for retention on our files when the originals are required for use in court, &c.

(6) All special agents' reports and official papers received in this division are first examined by the chief for the purpose of enabling him to direct prompt or special action upon such as require same. They are then examined by assistant chief and handed to register clerk for registration and proper distribution.

(7) All official communications written in this division are read by the assistant chief and then by the chief, who, if he approves same, affixes his initials and forwards same to the law clerk of the bureau for approval, before being signed by the Commissioner or Assistant Commissioner.

Statement showing in detail the methods of transacting business in the special-service division of the General Land Office in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the General Land Office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

This division has supervision over all special agents appointed to investigate fraudulent entries or unlawful inclosures of the public lands and all depredations upon the public timber. It was the former practice of this office to assign special agents to duty in certain States or Territories direct from their homes or places from whence appointed, involving great loss of time before they could acquire, through written and printed instructions, such knowledge of the duties devolved upon them as to enable them to render capable and efficient service ; but under the present administration each special agent, when appointed, is required to report in person to this office. Upon his arrival he is furnished with all printed instructions and circulars relating to the duties of special agents (both timber and land), given copies of reports of other special agents to examine, and if he desires, to copy, and in every way fully informed and instructed in all matters pertaining to the position to which he has been appointed ; he is then furnished with a printed list of questions to reply to in writing, and when it is deemed that he is sufficiently acquainted with the nature of the duties devolved upon him he is assigned to the State, Territory, or land district in which his services are most needed.

The work of the division is divided into two distinct branches, namely : Fraudulent entries of public lands, and depredations upon public timber.

The force of thirty employés is divided as follows: 1 chief, 1 assistant chief, 14 correspondents, 10 copyists, 2 registry clerks, 2 book-keepers.

Each correspondent has charge of certain States, Territories, and land districts, and acts upon all cases within limits of the same.

Mail matter, when received, is entered by the registry clerks, first in numerical register, then by States or Territories from which the matter is received; or, in case of special agents' reports, in volumes for that purpose. After which it is assigned to the correspondent having charge of the district to which it relates. All action taken upon mail matter is noted thereon, and the matter returned to the registry clerks for notation of action upon the registers.

FRAUDULENT ENTRIES OF PUBLIC LANDS.

The principal item of business in this branch is action upon alleged fraudulent land entries.

Method of business.

Complaint received:

Action on complaint:

1. Complaint received alleging fraud in a certain entry; description incomplete or indefinite.
2. Memorandum of data furnished as to identity of entry, and tract-books covering the locality searched for correct description, number, and status.
3. Withdrawal card made—name, number, and description given—to take place of entry papers in the files.
4. District, number of entry, and date on card entered in record of cases sent for.
5. Case docketed.
6. Copy of complaint, with correct description, &c., inclosed to special agent with directions to investigate the allegations.

Agent's report received:

Favorable action on agent's report:

1. Special agent's report of investigation docketed.
2. Case examined. Brief prepared showing the facts presented by the entry papers followed by the substance of the agent's report on the material points, submitted for examination to the clerk designated for that purpose by the chief of division, and returned to the chief for approval.
3. Proper action noted on report, on all communications with ease, on docket, and on entry papers.
4. Entry papers returned to files; district, number, and date noted in record of cases returned.
5. Brief and letters, reports, &c., filed.

Adverse action on agent's report:

1. The facts are stated in letter to the local officers and the entry held for cancellation, the party being allowed sixty days within which to apply for a hearing.
2. Agent advised of action taken.
3. Attorneys or agents appearing in the case advised of action taken.
4. Action noted on docket.

Register and receiver report at expiration of time allowed, transmitting evidence of service of notice, or attempt to procure service:

Register and receiver report default:

1. Report received, filed with case, and docketed.
2. No defense being made, the entry is finally canceled by letter to local officers.
3. Notation of cancellation made on report, on all communications with ease, on entry papers, and on docket.
4. Attorneys or agents appearing in case advised of cancellation.
5. Memorandum of cancellation sent to division of public lands for notation on tract-books.
6. Entry papers returned to files, district, number, and date being noted in record of cases returned.
7. Reports, letters, &c., filed.

Register and receiver transmit application for hearing:

1. Application for hearing docketed and filed.
2. Hearing ordered by letter to local officers.
3. Agent advised hearing ordered.
4. Attorneys or agents appearing in case advised of action taken.
5. Notation of action made upon report, letters, entry papers, and docket.

Register and receiver transmit record of hearing:

Testimony favorable to entry:

1. Record received, docketed, and filed.
2. Testimony examined; if it shows legality and compliance with the law, the case is closed by letter to local officers, allowing entry to stand intact.
3. Notation of decision made on record, on all communications with ease, on the entry papers, and on docket. Case returned to files.
4. District, number, and date of return noted on record of cases returned.
5. Reports, letters, &c., filed.

Testimony adverse to entry:

1. Entry held for cancellation on evidence presented by letter to local officers, party allowed sixty (60) days to appeal to Secretary of the Interior.
2. Attorneys or agents appearing in case advised of decision made.
3. Notation of action on papers and in docket.
4. Case filed.

Adverse action on record of hearing ; appeal to Secretary :

Appeal to Secretary :

1. Appeal filed with case and docketed.
2. Letter of transmittal to Secretary with schedule of papers in case, including copies of office letters.
3. Notation of action.

Case finally closed :

Final action :

1. Case closed by promulgation of Secretary's decision ; copy inclosed to local officers.
2. Attorneys or agents appearing in case notified of Secretary's decision.
3. Notation of action on entry papers, on all communications and on docket. Entry papers returned to files.
4. District, number, and date of return noted in record of cases returned.
5. Letters, reports, record, &c., filed.

Illustration of case of fraudulent land entry.

Complaint received :

Action on complaint :

1. April 4, 1886, letter received from William Hawk, dated at Pendleton, Oreg., March 28, 1886, alleging that Jacob Toole had made a fraudulent timber entry for land in section 29, township 2 north, of range 30, east. Registered and referred to special service division ; read by chief and assistant chief ; entered by registry clerk on numerical and miscellaneous docket, and referred to correspondent in charge of Oregon.
2. Tract-book examined for correct description of entry.
3. Withdrawal card made, giving name, number of entry, and description of land, to take the place of entry papers in the files.
4. Entry papers received and docketed.
5. April 6, 1886, copy of complaint sent to the special agent in charge of the district in which the land in question lies, with instructions to confer with the complainant, get fuller information, and make a thorough investigation of the case, and report.

Agent's report received :

Action on agent's report :

1. June 2, 1886, agent's report received, dated May 25, 1886, showing that Toole had made entry for land not subject to entry under the timber land act, and that he had been hired to make the entry by and in the interest of one Isaac Sharp, who furnished the money with which to pay for the land and expenses attending entry, and to whom the land was transferred by Toole on the day entry was allowed, in pursuance to their previous agreement, Toole receiving the stipulated compensation. Report registered, referred, &c., and charged on entry docket opposite case.
2. Entry held for cancellation by letter addressed to register and receiver at La Grand, Oreg., (that being the district in which the land in question is located), dated June 4, 1886, all the facts presented by the agent's report being therein set forth, and the register and receiver instructed to notify the entryman and transferee that they will be allowed sixty days within which to apply for a hearing to show cause why said entry should be sustained, and in the event that they fail to respond, the entry will be finally canceled. Agent advised of the action taken, and attorneys appearing in the case advised. Action noted on papers and docket.

Register and receiver report :

Action on register and receiver's report :

1. August 30, 1886, register and receiver's report received, dated August 23, 1886, stating that both parties were duly notified, and transmitting evidence of service of notice, together with the application of Sharp for a hearing. Registered, referred, &c., and charged on entry docket.
2. Hearing ordered by letter of September 3, 1886, to register and receiver, with directions to confer with the agent as to the date for the hearing, and thereafter give due notice to the parties in interest. Special agent and attorneys advised same date. Action noted on papers and docket.

Testimony adverse to entry :

Action on testimony :

1. October 25, 1886, record of hearing received from local office. Registered, referred, &c., and noted on entry docket.
2. Testimony being adverse, the entry was held for cancellation by letter of November 26, 1886, to the register and receiver, in which is set forth a synopsis of the testimony and the reasons for the action taken ; sixty days allowed for appeal. Attorneys notified. Notes made on papers and docket.

Appeal filed :

Action on appeal :

1. January 25, 1887, appeal filed, registered, referred, &c., and noted on docket.
2. Appeal transmitted to Secretary January 30, 1887, together with all the papers in the case. Register and receiver and attorneys advised. Notations made on papers and docket.

Case finally closed :

Final action :

1. February 25, 1887, Secretary returns papers in the case affirming the decision of this office. Entry canceled by letter to register and receiver, dated February 28, 1887, inclosing a copy of the Secretary's decision. Action noted on entry papers, on all communications, and on docket. Entry papers returned to files. Letters, reports, and record filed.

The above is an example of a supposititious case, without the complications and delay that frequently arise.

Case of C. P. Cogswell, involving nine pre-emption entries in the Duluth, Minn., land district.

- In October, 1882, hearings were had in these cases before the register and receiver upon the report of the special agent. On the day set for the hearing, after due notice, the special agent and assistant United States attorney appeared for the Government, no appearance being made by or for the claimants. From the evidence submitted the register and receiver decided that the entries were made fraudulently for speculative purposes, and that the law as to residence and improvement had not been complied with.
- April 18, 1883, the local officers forwarded the testimony, and upon consideration of the same this office, on August 31, 1883, found that the lands were in their natural state, utterly devoid of any sign of improvement or cultivation, except in two or three instances where pole pens were found, and thereupon the decision of the local officers was affirmed and the entries canceled.
- Under date of December 20, 1883, Cogswell filed an application asking for the issue of patents for the tracts involved, irrespective of any charges which the Government might urge against the entries, the applicant alleging that he was an innocent purchaser, for value, after the issue of the final certificates, and without notice of any defect in the title.
- On May 14, 1884, this office denied said application, holding that purchasers before patent were not innocent purchasers, but take with notice of all defects and subject to the final adjudication of the claims by the Land Department; that there was no power vested in this office to issue patents upon illegal entries of public land; that the assignee was allowed to apply for a further hearing to prove the validity of the entries; and that no further hearing having been applied for, the decision of August 31, 1883, was declared final.
- Application was then made to the Department for a writ of certiorari, and Secretary Teller, in passing on the petition of July 27, 1884, denied it so far as it proceeded upon the ground that the petitioner was a bona fide holder for a valuable consideration, and should therefore be protected and patent issue without regard as to whether the pre-emptor complied with the law or procured his final certificate by fraudulent practices, but directed that all the papers, proofs, and proceedings in the cases be certified to the Department for the purpose of enabling him to examine as to whether the action taken in canceling the entries was warranted.
- October 3, 1884, the papers were certified to the Department.
- Under date of February 11, 1885, the Department concurred in the opinion of this office that the entrymen never complied with the law in any respect; that their whole proceeding was fraudulent, and directed that the cancellations stand.
- On February 24, 1885, attorneys for Cogswell addressed a letter to the Department asking that action on the entries be suspended; that they be referred to the Board of Equitable Adjudication; and that opportunity be afforded them to submit argument in support of the case. Secretary Teller referred said letter to this office with an indorsement to suspend action and give the claimant an opportunity to present the matter to the Board of Equitable Adjudication.
- No argument having been filed or other action taken, the order of suspension was revoked by office letter of November 3, 1885. Appeal from this action was filed, but by letter of April 26, 1886, this office declined to forward the same, on the ground that the right of appeal did not exist. Application was thereupon made to have the matter certified to the Department, which application was denied by Department letter of June 15, 1886, but with the direction that sixty days be allowed the party to show cause why Secretary Teller's order should not be revoked by the Department, or in the mean time to present formal application for the reference of the cases to the Board, together with reasons and arguments why they should be so referred. The attorneys were notified October 30, 1886, and argument was filed December 28, 1886. It was argued at considerable length that the statutes provide that bona fide purchasers are to be protected by the Government from all illegal or fraudulent acts of the entrymen; that this office is bound to issue patents in such cases, even though the entries are proven to be fraudulent; and that if bona fide purchasers have no standing before the Land Department to secure the patents as a matter of law and strict legal right, they are clearly within the equitable relief extended by the law establishing the Board of Equitable Adjudication.
- On February 28, 1887, this office forwarded said argument to the Department, with its disapproval, holding that the questions presented had been repeatedly decided in the negative.
- Under date of April 4, 1887, the Department concurred in the opinion of this office, and denied the application, and on April 23, 1887, the register and receiver were advised of said decision and directed to hold the lands in question subject to entry by the first legal applicant.
- Every measure known to the Land Department has been taken in this case to secure the confirmation of the entries involved.

TIMBER DEPREDATIONS UPON PUBLIC LANDS.

The principal item of business in this branch is action upon alleged depredations upon public timber.

Method of business.

Complaint received :

Action on complaint:

1. Complaint received alleging timber depredation upon public lands—description of land not given, or indefinite.
2. Copy of complaint inclosed to special timber agent with instructions to investigate and report thereon.

Agent's report received :

Preliminary steps to determine upon action :

1. If not complete in details, report returned to agent with letter calling his attention to discrepancies, and directing him to resubmit report.
2. If complete in details, record of previous cases examined to ascertain if any former report of trespass by same party submitted.
3. Status of lands alleged to have been depredated upon ascertained from tract-books.
4. Case thoroughly examined in all its bearings to ascertain whether trespass was willful or ignorant and to determine upon action to be recommended.

If facts indicate willful trespass :

Legal action on agents' reports :

1. Papers in the case to Secretary with letter stating in full all the facts in the case, recommending reference to honorable Attorney-General with request that the proper United States district attorney be directed to institute legal proceedings, either criminal prosecution or civil action, or both, as the facts of trespass may warrant.
2. Upon notification, through the Department, that legal proceedings have been directed, the agent in charge of the case instructed to render all required assistance in same to United States district attorney, and to report disposition made of case in court.
3. Upon receipt of report relative to disposition of case in court, if the disposition made of same appears to be at variance with the reported facts of trespass forming the basis of the legal proceedings, without apparently satisfactory evidence of a rebutting nature having been adduced at time of trial, the agent's report to that effect is laid before the Secretary with letter rehearsing facts in full, and recommending that the report be called to the attention of the Attorney-General for proper action.

If facts indicate trespass was not willful:

Settlement by payment of damages without legal proceedings :

1. Papers in the case to Secretary, with letter reciting facts in full, recommending, in view of reported extenuating circumstances, that existing liability involved in the trespass be settled by payment of due measure of damages to proper officer of the Government, without resort to legal proceedings, provided such payment be made within a stipulated period.
2. Upon receipt of concurrent instructions from the Department, special agent in charge of the case so advised, and instructed to issue proper notification to party in interest and make due report upon action taken thereunder. Proper receiver of public moneys also notified and directed to receive and receipt for the amount in question, and duly report action. Proper notification in the manner furnished division of accounts.
3. Upon receipt of report from receiver transmitting receipt for amount in full, the same made duly matter of record in this division, and receipt referred to division of accounts.
4. Should payment not be duly made, as shown by reports from the special agent and receiver, the agent is directed to again demand payment under pain of legal proceedings, and report result.

If non-payment finally reported :

Legal action upon failure to make settlement:

1. Action to date recited in letter to Secretary, recommending reference to Attorney-General for due legal proceedings in accordance with the merits of the case.
2. (Subsequent action taken in the order above recited in connection with "Legal proceedings.")

Case finally closed :

Final action :

1. Notation of action on agents' reports, and on all communications relating to the case.
2. Abstract of all communications bearing upon the case entered in timber trespass record, with full notation of action therein.
3. Letters, reports, &c., filed.

Illustration of case of timber trespass.

Complaint received :

Action on complaint :

1. June 10, 1886, letter received from John Newman, dated at Saint Cloud, Minn., June 7, 1886, complaining of depredations on timber upon public lands.
2. Registered and charged to special service division. Read by chief and assistant chief of division; registered by registry clerk upon numerical register in proper order, then in miscellaneous register under Minnesota cases, and charged to correspondent having charge of Minnesota; read by clerk having supervision of timber depredation matters and finally referred, with any instructions deemed necessary in relation thereto, to the correspondent to whom charged, for action thereon.
3. June 14, 1886, copy of complaint inclosed to the special timber agent in charge of the district in question, with instructions to investigate the depredations alleged, and report thereon.

Agent's report received :

Preliminary steps to determining upon action :

1. July 9, 1886, report in the matter received from the agent, dated July 6, 1886, setting forth that, during the years 1885 and 1886, James Duncan and George Johnson (doing business under the firm-name of Duncan & Johnson), of Saint Cloud, Minn., procured to be cut on certain described vacant public land in Sec. 22, T. 46 N., R. 29 W., Minnesota, certain timber; which they sawed into lumber, making 1,344,700 feet, board measure, and sold same in the general trade, obtaining therefor \$14 per 1,000 feet, based upon a stumpage valuation of \$2 per 1,000 feet.
2. Report registered, referred, examined, and passed to proper correspondent in order above recited.
3. Upon examination by correspondent, report found not to be complete in details, the same returned accordingly to the agent, July 15, 1886, with letter calling his attention to discrepancies and directing him to resubmit report.
4. July 26, 1886, corrected report in the matter received from the agent, bearing date July 23, 1886. Registered, &c., as above stated.
5. Examined by proper correspondent; found complete in details.
6. Record of previous cases examined to ascertain if any former charges of trespass submitted against same parties.
7. Status of lands alleged to have been depredated upon ascertained from tract-books.
8. Case thoroughly examined in all its bearings. Facts found to indicate willful trespass by said parties.

Action on agent's report :

Recommending legal proceedings :

- (1) August 1, 1886, papers in the case transmitted to the Secretary in letter reciting all the facts in detail, and recommending reference to the honorable Attorney-General, with request that criminal proceedings be instituted against each of the alleged guilty parties, and that a civil action be brought to recover from them the full lumber value of the timber in question.
- (2) August 23, 1886, a communication received—by reference from the Department—from the Attorney-General, dated August 20, 1886, stating that the proper United States district attorney had been directed to institute proceedings as requested.
- (3) Registered, etc., as above stated.
- (4) August 28, 1886, the agent in charge of the case instructed by proper correspondent to render all required assistance in the same to the United States attorney, and to report disposition made of the case in court.

Case finally closed :

Final action :

- (1) Notation of action on all communications relating to the case, and the same entered on register.
- (2) Abstract of all communications bearing upon the case entered in timber-trespass record, with full notation of action throughout.
- (3) Papers in case filed.

The above is an example of a supposititious case without complications. Many trespass cases are reported upon land covered by fraudulent entries, which necessitate action upon the entries before action can be taken upon the trespass; other cases are reported embracing propositions of compromise from the purchasers of the timber, and others again in which an immediate seizure of the timber or lumber is necessary, or a seizure of a portion and legal proceedings to recover the value of that which has been disposed of. In many instances reports are deficient in detail and have to be returned to the agent for amendment, and in some cases, correspondence with the special agent extending over a period of several months is required before sufficient reliable data can be secured to enable this office to take intelligent action.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the special-service division of the General Land Office, Department of the Interior :

Character of business.	Pending July 1, 1884.	Received during 1885.	Disposed of in 1885.	Pending July 1, 1885.	Received during 1886.	Disposed of in 1886.	Pending July 1, 1886.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Timber trespass cases	*61	335	246	*150	1,009	969	250	410	539	121
Homestead entries		608	444		932	526	1,206	2,222	743	2,685
Cash entries		410	363		931	360	793	2,503	367	3,123
D. S. filings		406	430		531	389	103	264	142	225
Timber-culture entries		104	173		191	406	479	1,279	190	1,468
Timber-land entries		695	673		353	151	119	107	158	68
Desert entries		213	42		76	14	50	151	39	162
Mineral entries		16	15		17	6	37	37		74
Miscellaneous entries							270			
Fencing cases		60	7		42	105	86	94	104	76

* No record kept in other cases.

During fiscal year ending June 30, 1885, 41 timber agents were employed, their aggregate services being equivalent to the services of 22 agents for the twelve months and 1 for four months. They reported 396 cases, or an average of 1½ cases each per month. During same time 28 land agents were employed, their aggregate services being equivalent to the services of 22 agents for the twelve months and 1 for three months. They reported 2,512 cases, or an average of 9½ cases each per month.

During fiscal year ending June 30, 1886, 50 timber agents were employed, their aggregate services being equivalent to the services of 21 agents for the twelve months and 1 for seven months. They reported 301 new cases, or an average of 3 cases each per month. During same time 40 land agents were employed, their aggregate services being equivalent to the services of 25 agents for twelve months. They reported 3,073 cases, or an average of 10 cases each per month.

During the greater portion of the above time it has been impossible for special agents to personally examine fraudulent entries or cases of timber trespass in many of the States and Territories, owing to the inclemency of the season and the deep snows covering the ground. The majority of cases are investigated during the spring and early summer months, and it is estimated that the total number of cases which will be investigated during this entire fiscal year will be far in excess of any previous one.

From July 1, 1886, up to February 28, 1887, 31 timber agents were employed, their aggregate services being equivalent to the services of 26 agents for the eight months and 1 for six months. They reported 410 cases, or an average of 2 cases each per month. During same time 36 land agents were employed, their aggregate services being equivalent to the services of 28 agents for eight months and 1 for four months. They reported 2,666 cases, or an average of 12 cases each per month. During the last two years the time of the timber agents has been largely occupied in reinvestigating, securing evidence, and attending court in trespass cases reported upon by previous special agents, and the land agents in reinvestigating, securing witnesses, and attending hearings in fraudulent land-entry cases reported upon by previous agents.

The records in the special-service division are not so arranged as to admit of a statement being prepared showing the average amount and character of business performed, transacted, and disposed of during each month of the years 1884, 1885, and 1886, and up to March 1, 1887.

Subsequent to March 1, 1887, however, a weekly record has been kept of all work transacted.

The following statement shows the average number of employés in the special-service division of the General Land Office, Department of the Interior, during the periods specified :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	20	21	22	22	27	26	23	23	23	21	19	19
1885.....	20	21	20	22	21	21	21	21	21	21	22	20
1886.....	22	22	23	26	28	28	29	29	30	30	30	30
1887 (to March 1)	31	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

No record has been kept in this division of the individual work performed by the several clerks therein, either by the week, month, or year, prior to March 1, 1887.

The reasons for not having kept such a record are—

(1) Such record was not required by either office or departmental regulations.

(2) The force of clerks assigned to duty in this division has at all times been insufficient to keep up with the current work, and the chief in charge has had personal knowledge that the time of each clerk has been fully occupied in attending to his official duties.

(3) Owing to the diversity of the work and the numerous preliminary actions required before final action can be taken upon any one case, no comparative statement can be made which will accurately show the actual work performed by each clerk.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the special-service division of the General Land Office, Department of the Interior :

Year.	Number of employés.*	Average number of days present.†	Average number of hours employed daily.‡	Number by proxy.	Percentage of absence.§
1884.....	21½	245.6	7	0	16.2
1885.....	21	245.9	7	0	15.4
1886.....	28½	262.7	7	0	13.5
1887 (to March 1).....	30½	44.8	7	0	6.6

* The aggregate amount of time of all employés, reduced to an equivalent number for the whole year.

† The average number of days the employés stated in "Number of employés" column were present out of the whole number of working days, Sundays, holidays, and days office closed being deducted.

‡ The average number of hours employed daily during the days present.

§ The percentage of absence stated is the percentum of time lost out of the number of working days on account of leave, sickness, &c.

Thirty minutes allowed each day for lunch, which is almost always taken, leaving actual time clerks are employed not exceeding six and a half hours each day.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in

The following statement shows the average number of employés during each month of the years named :

Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	5½	6	5	4½	5	5	5½	4	5	4	4	5
1885.....	5	5	6	5½	5	5	4	4	4	3	3½	3½
1886.....	4	4	4	4½	4½	5	5	4	4	4	4½	4½
1887 (to March 1)	4	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The time of each examiner, for the year, is taken from the weekly time reports.

The average is obtained by dividing the total number of days employed by the number of examiners.

The clerical force is not included in this sheet.

The following statement shows the amount of business transacted and disposed of by the employé doing the most and the employé doing the least during each month of the years named :

MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	74
1885.....	94	84	115	99	96	96	82	86	100	114	92	86
1886.....	79	80	91	83	68	117	91	85	92	103	98	92
1887 (to March 1)	72	74	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MINIMUM.

1884.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	40
1885.....	42	24	49	46	34	33	36	15	21	26	21	15
1886.....	45	27	53	24	27	35	39	36	30	37	23	26
1887 (to March 1)	68	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

No personal work report was required prior to December, 1884.

These figures represent new applications for patents, caveats, easements returned to the office for reconsideration, accompanied either by amendment, argument, correction, or request for reconsideration.

Declarations of interferences, renewed easements, reissues, and appeals are also included.

The clerical force is not included in this sheet.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the years named, also the number of days devoted to business by the employé present for the greatest number of days and employé present for the least number of days :

Year.	Average No. of days.	Hours daily.	In person or by proxy.	Maximum No. of days.	Minimum No. of days.
1884.....	260½	7	In person.	273½	238
1885.....	271	7	....do.....	285½	241½
1886.....	272½	7	....do.....	277	268
1887 (to March 1).....	44	7	....do.....	48½	40½

The time devoted to business by each employé (including clerical force) is taken from the weekly time reports; and the total number of days employed divided by the number of employés to obtain the average.

Statement showing the principal items of business transacted in the first division of the United States Patent Office.

Examination of applications for patents.

Examination of caveats.

Reconsideration of rejected applications, if amended or returned, and a patent demanded.

Preparation of a statement in case the inventor appeals from the decision of the examiner to the examiner-in-chief, or to the Commissioner in person.

In case applications conflict, and claim the same subject-matter, the examiner institutes interference proceedings.

Motions to dissolve an interference are heard by the primary examiner.

The assistant examiners search for references and evidence as to patentability, and present the case to the principal examiner, with the evidence collected; and from the decision arrived at an action is made, and the inventor is informed by the Commissioner.

The lady clerk of the division enters each day, in the register, the applications received, after it is ascertained to which division they properly belong. She records all actions of the office in the register (the office action and the inventors are recorded upon the back of the file), makes all proper amendments or changes in the case, directed by the inventor; copies all office letters and prepares them for the mail; copies all statements, decisions, reports, &c.; stamps and properly numbers file and drawing, and all papers, and records the patents, each week, in their proper column; in the register. She keeps account of all cases called up or sent out of the room, and receives and disposes of them on their return. She also makes up the daily, weekly, and monthly reports of time and work to the Commissioner.

Statement of the first division of the United States Patent Office, showing the methods adopted in transacting the principal business matters, beginning with the receipt of the matter by the Department or by any of the agents of the Department, and giving in consecutive order the various steps taken by each of such business matters, through the various divisions of the office and the various bureaus, and divisions of such bureaus, and employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

Applications for letters patent and caveats, as they are received each day from the application division, are inspected to ascertain to which division they properly belong, and are then recorded in the register by the lady clerk, who places the serial number and book number upon the drawing and papers. The case is then ready for examination, and is taken up in the order of its date of filing, and examined as to novelty, utility, clearness of description and illustration, formality of petition, oath, signatures, &c., and the inventor or his attorney is informed of the office decision. The case, if rejected, then awaits the inventor's action. If allowed, for grant of patent, the case receives the signature of the examiner in charge, and is sent to the issue division, where it is prepared (on payment of the final fee) for the printer and photolithographer.

When the inventor amends, or requests a reconsideration, the case is again taken up, the amendment or argument considered, and a decision rendered, as before.

In case the inventor appeals to the board of examiners-in-chief or to the Commissioner, the examiner prepares a statement (in reply to the "reasons of appeal") to accompany the case.

When two or more pending cases or pending case with unexpired patents have conflicting claims, the examiner forwards to the examiner of interferences notices of interference (together with the files and drawings) for all the parties, and if the issue has been well defined, and the notices are correct, the interference is declared *pro forma* by forwarding the notices to the several parties.

After the decision of the examiner of interferences (upon evidence submitted or upon the record) as to which party is the prior inventor, the cases are returned to the primary examiner, and further action taken in accordance with such decision.

Motions to dissolve an interference are heard and decided by the primary examiner.

Applications for reissue of letters patent are considered by the primary examiner, and are also subject to appeal, interference, correction, or amendment.

Cases renewed after forfeiture for non-payment of the final fee are entered and examined with the new cases.

[*Note by Committee:* The subjoined statement was substituted for three sheets in report.]

The following statement shows the amount and character of business on hand, received, and disposed of in the first division of the Patent Office at the times named:

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
New applications for patents; caveats; cases returned to the office for reconsideration, either by amendment, correction, or request for reconsideration; declarations of interference; renewed cases; reissues and appeals.....	160	2, 791	2, 658	293	3, 671	3, 821	143	3, 134	3, 186	93	460	474	79

SECOND EXAMINING DIVISION.

Report of the second examining division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the second examining division of the United States Patent Office, Department of the Interior.

Examination of applications for letters patent.

[*Note by Committee:* The subjoined statement was substituted for four sheets of tables.]

The following statement shows the amount and character of business on hand, received, and disposed of in the examining division No. 2 of the Patent Office at the times named:

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Examination of applications for letters patent:													
New applications	410	1, 624	1, 539	495	1, 396	1, 747	144	1, 383	1, 461	66	229	230	65
Work returned	62	2, 670	2, 641	91	3, 774	3, 770	95	3, 589	3, 623	61	506	509	58

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employes in examining division No. 2 of the United States Patent Office, Department of the Interior:

Character of business.	Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Examination of applications for letters patent.....	1884	78	74	58	57	62	57	63	87	45	65	45	76
Do	1885	59	62	84	79	74	70	83	58	58	61	55	54
Do	1886	57	70	86	78	63	77	66	69	63	67	72	55
Do	1887	63	60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The slight decrease in the averages for September, October, and November, 1884, was due to the fact that the time of the examiner and assistants was required in preparing the exhibit for the New Orleans Exposition; the increase from March to July, 1885, to extra or night work done by employes to bring up the work of the division.

The following statement shows the average number of employés in examining division No. 2 of the United States Patent Office, Department of the Interior, during the periods specified :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884	6	6	5	5	5	6	6	6	5	4½	5	5
	2	2	2	2	2	1½	1	1	1	2	2	2
	8	8	7	7	7	7½	7	7	6	6½	7	7
1885	6	7	7	7	7	7	7	7	7	7	7	7
	1	1	1	2	2	2	2	2	2	2	2	2
	7	8	8	9	9	9	9	9	9	9	9	9
1886	7	7	7	6	6	6	6	6	6	6	5	6
	2	2	2	2	2	2	2	2	2	2	2	2
	9	9	9	8	8	8	8	8	8	8	7	8
1887 (to March 1)	6	6										
	2	2										
	8	8										

The first line opposite each year indicates the number of examiners, the second the number of clerks, and the third the total.

The principal examiner is included, whose time was principally employed in reviewing and revising the work of the assistant examiners.

The average number of employés for 1884 was 7½; 1885, 8⅔; 1886, 8⅓, and 1887, 8.

The following statement shows the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified in examining division No. 2 of the Patent Office, Department of the Interior :

[Examination of applications for letters patent.—Employé doing the most.—Maximum.]

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884												109
1885	102	110	140	146	118	113	152	112	114	110	83	104
1886	93	103	140	117	93	108	108	110	105	116	96	96
1887 (to March 1)	109	103										

[Examination of applications for letters patent.—Employé doing the least.—Minimum.]

1884												53
1885	45	43	42	48	49	18	49	31	39	41	49	39
1886	47	49	35	75	61	70	71	70	62	57	61	48
1887 (to March 1)	57	59										

Individual reports were not kept prior to December, 1884, no order having been issued by the Commissioner for such reports.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in examining division No. 2 of the Patent Office, Department of the Interior :

Year.	Number of employés.	Average number of days present.	Average number of hours employed daily.	Number by proxy.
1884	7½	276	6½	None.
1885	8⅔	277½	6½	None.
1886	8⅓	276½	6½	None.
1887 (to March 1)	8	47½	6½	None.

Prior to the year 1885 individual work reports were not required in the examining divisions of the U. S. Patent Office (see Commissioner's order No. 200, November 29, 1884).

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the years named, also the number of days devoted to business by the employé present for the greater number of days and employé present for the least number of days :

Year.	Average No. of days.	Hours daily.	Maximum No. of days.	Minimum No. of days.
1884.....	280	7	288	272
1885.....	273	7	278	267
1886.....	283	7	289	276
1887 (to March 1)	44	8	48	40

The average is here made between the employé having the maximum number of days and the employé having the minimum number of days.

The time devoted to office work by the members of the examining force of this division has not been restricted to seven hours, or the regular office hours, as the members are in the habit of remaining after 4 o'clock, and also returning to do official work in the evening.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending and undisposed of, at the dates specified below, in the division of metallurgy, in the United States Patent Office :

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Applications	128	837	.....	44	1,080	.....	143	1,127	.....	96	202	.....	106
Amended cases.....	39	1,618	2,565	13	2,003	2,959	38	1,756	2,879	89	426	592	91

Statement showing in detail the methods of transacting business in the third division of the Patent Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the examiners' division, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

DUTIES OF THE PRINCIPAL EXAMINER OF DIVISION III.

First. Supervising the work of the division in all its details.

Second. Personally considering all applications for patents, new or amended, which are acted upon in the division, the same being submitted to the examiner by the assistants.

Third. Hearing oral arguments of attorneys and applicants in regard to pending cases, and answering questions in regard to the chemical industries covered by the classes of the division.

Fourth. Declaring interferences, and deciding motions to dissolve same.

Fifth. Making statements in cases appealed to the board of examiners-in-chief, and answering motions or petitions to the Commissioner.

Sixth. Examining applications, signing cases prepared for issue, also signing all letters, reports, and requisitions, emanating from the division.

DUTIES OF ASSISTANT EXAMINERS.

First. In new applications, carefully reads the specification of each application, and compares the descriptive matter with the figures of the drawing, at the same time making notes of all inaccuracies in the wording of the specification, lettering of the drawings, &c. After this formal examination of the papers in each case, the assistant makes a search, first, through the United States patents of the class or classes bearing the closest relation to the case in hand; second, through the English, German, and other classified foreign patents, and finally through the works on the chemical arts in the Patent Office library. After a complete search to determine the novelty of the invention in question, the assistant prepares a digest of the application, if it so requires, and collects the materials for the proposed office action, and submits the case to the principal examiner, following which the letter to the applicant is prepared.

Second. In old cases or amended applications which come up for action, the assistant carefully considers the amendment and argument of the attorney or applicant, in connection with the references and objections of the record, and after carefully comparing the claims or specification with the amendment, either repeats his former objections, or if the changes in the presentation of the case so demand makes a further record or prepares the case for issue; in either case submitting the application to the principal examiner.

Third. Classifying patents.

Fourth. Distributing copies of patents, photolithographs, drawings, &c., used in the examination of cases.

DUTIES OF THE EXAMINERS' CLERK.

First. Giving applications and caveats and their drawings the proper book number, then registering the serial, monthly, and book number of each case, also the name of applicant and attorney, title of the invention, date of the application, date received in the examiners' room, number of the sheets of drawings in each case, and, finally properly indexing such register.

Second. Press-copying and indexing the office letters or actions in each case, and mailing the type-written copies, and entering these actions in the official register.

Third. Entering amendments to specifications and letters from applicants, indorsing such amendments and letters on the file wrapper, and also registering such amendments and letters in the examiners' book.

Fourth. Distributing and stamping files and drawings of applications, and getting them out when needed.

Fifth. Filling out the monthly, weekly, and daily reports, also keeping the daily time report of the employes of the division.

Sixth. Making up cases for issue, filing brief in each case, and preparing application for examiner's signature.

The following statement shows the principal items of business transacted in the third division of the United States Patent Office:

Examining applications for patents for improvements in processes and apparatus in the following subclasses of industrial chemistry:

[CLASSES.—7. Brewing and fermenting. 96. Coating with metal. 124. Distillation. 48. Gas. 75. Metallurgy. 148. Metal tempering, annealing, and cementation.]

Class 7.—Brewing and fermenting. (III.)

9. Fermented beverages.
1. Fermenting-vats.
3. Malting.
4. Mashing.
5. Mash-heaters.
6. Preserving beer and wine.
7. Purifying beer and wine.
8. Hop-backs.
10. Wine.

Class 96.—Coating with metal. (III.)

1. Electro-deposition.
2. Galvanizing.
5. Nickel-plating.
8. Precipitating.
7. Tinning.

Class 124.—Distillation. (III.)

1. Aging liquors.
2. Alcohol.
3. Burning-fluid.

Class 124.—Distillation. (III)—Continued.

4. Condensers.
6. Fire-tests.
7. Fresh water.
8. Oil.
9. Paraffine.
10. Preparing grain.
11. Refining oils.
13. Revenue-guards.
12. Turpentine.

Class 48.—Gas. (III.)

1. Anti-combustion.
2. Carburetors—
24. Carbureting-lamps,
29. Float-vaporizers,
25. Gas and air mixers,
3. Jet-mixers,
26. Oil-feed, float-valves,
27. Oil-feed, rotary,
28. Revolving.
4. Center-seals and by-pass valves.
9. Dip-pipes.

Class 48.—Gas. (III)—Continued.

10. Exhausters.
- Gas—
5. Coal,
6. Coal and oil,
8. Coal and water,
7. Coal, oil, and water,
12. Hydrogen,
13. Oil,
14. Oil and water,
19. Water,
20. Wood,
22. Gas-distribution.
11. Gas-holders.
15. Purifiers.
18. Retort-chargers.
23. Retort gas-furnaces.
16. Retort-lids.
17. Retorts and settings.

Class 75.—Metallurgy. (III.)

1. Alloys.
31. Amalgamators—
34. Electric,
35. Lead,
36. Mercury,

Class 75.—Metallurgy. (III)—Con- *Class 75.—Metallurgy. (III)—Con-* *Class 75.—Metallurgy. (III)—Con-*
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- | | | |
|-------------------------------|------------------------------|---|
| 31. Amalgamators—Continued. | 14. Iron and steel direct— | 18. Solution and precipitation— |
| 37. Plate, | 71. Furnaces, | Continued. |
| 33. Vacuum, | 72. Retort-furnaces, | 70. Parting bullion. |
| 38. Vapor. | 73. Bricks, | 28. Spelter. |
| 2. Assaying. | 74. Flux, | 27. Treating molten iron— |
| 4. Blast-furnace accessories. | 75. Gases, | 44. Air, steam, and gases, |
| 7. Calcining-kilns. | 76. Slag, | 45. Alloys, |
| 2. Coke and charcoal. | 77. Sponge. | 46. Basic, |
| 3. Converters. | 15. Lead, | 87. Basic linings, |
| 54. Drying air. | 16. Mechanical puddlers and | 47. Granulating, |
| 30. Fume-arresters. | tools. | 48. Oxides. |
| 10. Furnace-protecting, | 22. Quicksilver. | 49. Physic, |
| 82. Fire-brick. | 17. Reducing and separating— | 50. Scrap, |
| Furnaces— | 57. Apparatus, | 51. Vacuum. |
| 83. Annealing, | 58. Aluminium, | 39. Tuyeres. |
| 5. Blast, | 62. Copper, | 55. Utilizing tin scrap— |
| 29. Crucible, | 59. Desilverizing lead, | 56. Wet processes. |
| 9. Cupola, | 60. Desulphurizing ores, | |
| 11. Gas, | 61. Disintegrating ores, | |
| 31. Burners, | 63. Flux, | <i>Class 148.—Metal tempering, an-</i> |
| 88. Heating air and gas, | 64. Gold and silver, | <i>nealing, and cementation. (III.)</i> |
| 78. Mixing air and gas, | 85. Manganese, | |
| 80. Producers, | 66. Nickel and cobalt, | 7. Cementation and case hard- |
| 10. For heating blanks, | 65. Ore bricks. | ening. |
| 41. Hydrocarbon— | 23. Regenerators. | 8. Decarbonizing. |
| 42. Injector-burners, | 24. Roasting roasters. | 9. Tempering and annealing— |
| 43. Retort-vaporizers, | 25. Roasting and smelting | 10. Applications of electric- |
| 84. Melting, | hearth. | ity. |
| 19. Pigment, | 18. Solution and precipita- | 11. Compositions, |
| 20. Puddling, | tion— | 3. Metals generally, |
| 26. Shaft and shelf. | 86. Apparatus, | 12. Metals other than iron, |
| 12. Hot-blast ovens— | 67. Chlorination, | 4. Sheets and plate metal, |
| 52. Single surface, | 68. Electrolysis, | 5. Wheels and tires, |
| 53. Double surface. | 69. Ferric salts, | 6. Wire and springs. |

Attention is respectfully called to the fact that the number of so-called "actions" in this division in no wise adequately represents the amount of labor bestowed on the consideration of applications. In this division, the official title of which is somewhat misleading, are examined inventions in the chief branches of applied chemistry, metallurgy in its widest sense, including the application of electricity to the extraction and deposition of metals, the manufacture of gas, of illuminating oils, and alcoholic liquors. This list represents, probably, the chief manufactures of the United States. Vast interests are often involved in the questions presented to the examiner, and irreparable injury may be inflicted by an erroneous decision on his part. The inventors, too, are in many instances passed masters in their respective arts, men of great learning, and well acquainted with what has already been accomplished by previous laborers. To determine the novelty of what a Thomas, a Siemens, an Edison believes to be new in the art to which he has devoted his life is not a task to be accomplished by the inspection of a limited number of drawings, but demands and receives the labor of days of patient research in all the accessible English, German, American, and French patents bearing on the subject, the volumes of the scientific journals, and treatises, ever increasing in number, on the matters involved. The files of the patent cases may be referred to as indicating (though imperfectly, since they only record results) the extent of the field of search.

From what has been stated, it will be evident that the amount of work performed in this division cannot be estimated by the number of letters written. It often, indeed, happens that the number of so-called "actions" is in inverse ratio to the amount of labor bestowed on an application and to the care exercised by the examiner to secure fair treatment for the applicant and a prompt disposition of his case. The more careful and exhaustive is the search which is made before a letter is written the more quickly do the true limits of the invention become visible to the examiner and the applicant, and the fewer "actions" are required to make a final determination of the patentability of the subject matter of the application. It may not be improper to refer, in this connection, to the fact that after a careful search through the record of litigated patents the examiner can find no patent issued from this division in the past ten years that has ever been upset by the courts on references overlooked in the examination preceding its issue.

FOURTH DIVISION.

Report of the fourth division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

The following statement shows the amount and character of business on hand, received, and disposed of in the civil engineering division, No. 4, of the office of the Patent Office at the times named:

Character of business.	Pending Jan. 1, 1884.*	Received during 1884.†	Disposed of in 1884.	Pending Jan. 1, 1885.*	Received during 1885.†	Disposed of in 1885.	Pending Jan. 1, 1886.*	Received during 1886.†	Disposed of in 1886.	Pending Jan. 1, 1887.*	Received up to Mar. 1, 1887.†	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.*
Applications	263	1,489	1,431	321	1,441	1,560	202	1,647	1,613	236	205	250	191
Caveats	238	128	225	141	100	122	119	115	106	128	24	26	126

* The figures in these columns denote both new applications on hand and applications renewed or renewable by amendment.

† The figures in these columns denote the number of new applications only received during the year or period. They do not include applications denied and afterwards brought up for action again by amendment or the like.

The following statement shows in detail the business in the civil engineering, fourth division, of the office of the Commissioner of Patents for the years 1884, 1885, 1886, and 1887 (to March 1):

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	301	292	334	312	357	325	330	208	171	266	281	307
1885.....	276	264	484	404	335	360	271	211	213	394	291	265
1886.....	330	251	370	302	276	306	290	274	214	227	272	308
1887 (to March 1)	344	326	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The figures denote the number of actions on cases for the times specified.

The following statement shows the average number of employes during each month of the years named:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	9	9	9	8.5	8	8	8	8	8	8	8	8
1885.....	8	8	8	8	8	7	6.25	6	6	7	7.75	7
1886.....	7	6	7	7	7	7	7	7	6	7	7	6.5
1887 (to March 1)	6	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The above are examiners employed for specified time; in addition one clerk was employed during all of said time for clerical duty.

The following statement shows the amount of business transacted and disposed of by the employe doing the most and the employe doing the least, during each month of the years named:

MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1885.....	48	64	103	105	76	81	89	74	68	65	72	71
1886.....	71	83	100	91	75	84	97	72	101	73	65	107
1887 (to March 1)	106	98	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MINIMUM.

1885.....	28	25	34	40	35	42	17	30	20	58	36	21
1886.....	32	16	9	34	4	14	13	12	9	23	12	9
1887 (to March 1)	32	48	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

No account of actions kept for 1884, as it was not then required.

Average number of days and the time and attention devoted to the consideration and transaction of business during the years named, also the number of days devoted to business by the employé present for the greatest number of days and employé present for the least number of days.

Calendar year.	Average No. of days.	Hours daily.	In person or by proxy.	Maximum No. of days.*	Minimum No. of days.*
1884	243.6	7	In person...	298	259
1885	298	7	In person...	275	234
1886	302.3	7	In person...	293	255
1887 (to March 1)	50	7	In person...	52	52

* Employes in the division during the entire year.

In 1884, three persons were in the division fractions of the year, averaging 129 days each.

In 1885, four persons were in the division fractions of the year, averaging 91 days each.

In 1886, seven persons were in the division fractions of the year, averaging 117 days each.

In January and February, 1887, one person was in the division less than one month, working 24 days.

FINE ARTS (FIFTH) DIVISION.

Report of the fine arts (fifth) division of the Patent Office on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

[*Note by Committee:* The following has been substituted for four sheets given in report.]

The amount and character of business on hand, received and disposed of in the fine arts division (No. 5) of the office of the Commissioner of Patents at the times named:

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Applications for patents, caveats, cases returned to the office for reconsideration accompanied either by amendment, argument, or request for reconsideration without change, declarations of interference, renewed cases, reissue applications, and appeals....	277	2,580	2,240	617	4,139	4,253	503	3,994	4,370	127	628	645	110

The following statement show the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of, at the dates specified below, in the division of fine arts (division 5) in the office of the Commissioner of Patents:

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Applications for patents	277	2,520	2,180	617	4,067	4,181	503	3,932	4,308	127	620	637	110
Applications for caveats .....	.....	60	60	.....	72	72	.....	62	62	.....	8	8	.....

These figures represent new applications for patents, caveats, cases returned to the office for reconsideration, accompanied either by amendment, argument, or request for reconsideration without change. Declarations of interference, renewed cases, re-issue applications, and appeals are also included.

The following statement shows in detail the business in the fine arts (fifth) division of the office of the Commissioner of Patents, Department of the Interior, for the years 1884, 1885, 1886, and 1887 (to March 1):

PER CAPITA.*

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average number employed.
1884	52	52	46	62	51	48	30	81	16	19	18	42	5
1885	50	56	98	70	92	98	68	68	66	49	62	48	5
1886	71	61	68	56	85	65	69	80	73	39	76	55	5
1887 (to March 1) ..	55	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6

* Only those engaged in examining work included in this table. The last column shows the average number engaged.

SUM TOTALS.

1884	259	260	229	310	254	238	149	405	81	93	91	211	.....
1885	252	281	491	348	458	490	338	342	329	243	312	240	.....
1886	353	307	341	279	427	323	344	401	367	196	380	276	.....
1887 (to March 1) ..	329	299	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the average number of employes during each month of the years named :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884	8	7	8	8	8	7	6	6	4	4	6	7
1885	5	7	8	8	8	8	8	7	7	8	7	7
1886	8	8	9	9	8	8	8	7	7	8	10	9
1887 (to March 1) ..	9	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Total force (both examining and clerical) included in this table.

The following table shows the amount of business transacted and disposed of by the employe doing the most and the employe doing the least during each month of the following years :

MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884 .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	80
1885	101	74	134	103	102	137	67	78	79	70	80	56
1886	96	70	67	56	162	104	99	69	197	44	111	89
1887 (to March 1) ..	94	69	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MINIMUM.

1884 .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18
1885	24	23	28	30	48	49	39	39	35	31	44	40
1886	59	52	15	12	33	21	31	16	24	18	26	21
1887 (to March 1) ..	22	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

No record of individual work was required to be kept by office order prior to December, 1884.

The clerical force is not included in this sheet, the work performed by it being so varied and miscellaneous in character as to preclude the possibility of averaging the same with that performed by the examining force.

The following shows the average number of days and the time and attention devoted to the consideration and transaction of business during the years named, and number of days devoted to business by the employé present for the greatest number of days and employé present for the least number of days:

Year.	Average number of days.	Hours daily.	In person or by proxy.	Average extra time, in hours.	Maximum number of days.	Minimum number of days.
1884.....	142 ⁶⁸ / ₁₁	7	In person.	No record.	285	254
1885.....	190 ³ / ₈	7	do		302	277
1886.....	159 ⁵ / ₁₆	7 ⁶ / ₁₁	do		290	252
1887 (to March 1).....	43 ¹ / ₈	7	do	No record.	48	36

Statement showing the principal items of business transacted in the fine arts (fifth) division of the United States Patent Office.

Examination of applications for patents.

Examination of applications for reissues.

Examination of caveats.

Reconsideration of rejected or otherwise acted on applications, as requested or amended.

Preparation of statements in case of applicants appealing from the decision of the examiner to the examiner-in-chief or the Commissioner in person.

Declarations of interferences as between conflicting applications or applications and unexpired patents.

Hearings and decisions before and by the principal examiner on motions for the dissolution of interferences.

Searches made by the assistant examiners for references and evidence as to the fact of patentability or otherwise, those found being presented for review by the principal and according to the decision arrived at, actions being made by them on the applications under consideration and the applicants duly notified of the same by the Commissioner.

All these actions of the office are recorded by the clerk of division in the *Examiner's Journal*, such actions being duly noted on the backs of the files by the assistants making the examinations. She also makes all proper changes in a case as directed by amendment filed by the applicant; copies all office letters and prepares them for the mail; takes press-copies of the originals, indoes the same, and files them away in the cases to which they respectively belong; also copies all statements, decisions, reports, &c., and stamps and properly numbers all papers, files, and drawings. She keeps strict account of all cases called up or sent out of the room, and receives and disposes of the same on their return. The clerk makes out also the *daily*, *weekly*, and *monthly* reports of time and work for the information of the Commissioner.

Statement of the fine arts (fifth) division of the United States Patent Office, showing the methods adopted in transacting the principal business matters, beginning with the receipt of the matter by the Department or by any of the agents of the Department, and, giving in consecutive order, the various steps taken by each of such business matters, through the various divisions of the office and the various Bureaus, and divisions of such Bureaus, and employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

Applications for letters patent, as they are received each day from the application division, are inspected by the principal examiner to ascertain to which class they properly belong, and are then duly recorded in the journal by the clerk who places the serial number and book number upon the papers and drawing. Such are then ready for examination, each case being taken up in the order of its date of filing and examined as to novelty, utility, clearness of description, and illustration, and as to matters of form, and the inventor or his attorney informed of the office decision by letter. The case, if rejected, then awaits action by the applicant. If allowed for patent by the examiner, it is sent to the issue division, where it is prepared (on payment of the final fee) for the printer and photolithographer.

When the inventor amends or asks for a reconsideration of his case, it is again taken up for examination, and a decision rendered thereon, as before. In case an appeal is taken to the board of examiners-in-chief, the examiner in charge prepares a statement, furnishing the grounds of his action (in reply to the reasons of appeal) to accompany the case.

When two or more pending cases or a pending case and unexpired patent have conflicting claims, the examiner forwards the interference letters (written and addressed to the respective parties) to the examiner of interferences, together with the files and drawings, and if the issue has been well defined, and the notices of interference correct, the same is declared *pro forma* by the forwarding of said notices to the several parties interested.

After the decision of the examiner of interferences, based upon the evidence submitted as to the question of priority of invention, the cases are returned to the examiner and further action taken by him in accordance with such decision.

Applications for reissue of letters patent are carefully examined and critically reviewed, and are subject to appeal, interference, correction, or amendment, as the case may be, like other applications.

Cases renewed after forfeiture for non-payment of the final fee are entered and examined as new cases.

The general subjects of invention examined in this division are classified as follows:

Fine arts, jewelry, music, photography, stationery, toilet, and umbrellas and canes.

CHEMICAL DIVISION.

Report of the chemical division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee and called for by Department circular of March 23, 1887.

The following statement shows the principal items of business transacted in the chemical division of the United States Patent Office.

In this division are examined applications for patents upon—

<i>Class 8.—Bleaching and dyeing.</i>	<i>Class 44.—Fuel.</i>	<i>Class 87—Continued.</i>
Apron vats and stretchers, Bleaching, Carbon dyes, Dyeing processes, Dyes, Mordants, Perforated rolls and spray jets, Press dyeing, Renovating dress, Vats, close, Vats, open, Steam and bleach chests, Wool cleaning.	Artificial, Fire-kindlers, Peat-machines, Purifying coal.	Refining fat oils, Rendering, Soap, Soap cutting, Soap manufacture, Wax, Wool-oils.
<i>Class 23.—Chemicals.</i>	<i>Class 149.—Hides, skins, and leather.</i>	<i>Class 91.—Painting.</i>
Acids, mineral, Ammonia, Apparatus, Carbon compositions. Not dyes, Distilling wood, Fire-extinguishing compounds, Metalloids, Packing chemicals, Purifying water, Salines, Soda and potash.	Bating, Coloring and polishing, Currying, Depilating, Preserving hides, Tanning materials, Tanning processes, Tawing.	Enameling wood, Fire-proofing compounds, Graining, Ink: Indellible, Printing, Writing, Japanning, Lamp-black, Mixed paints, Painting, Painting-machines, Paint-mixers, Pigments, Stencils, Stove polishes, Striping, Varnishes, Varnishing-machines, White lead.
<i>Class 52.—Explosives.</i>	<i>Class 167.—Medicines.</i>	
Blasting compounds, Fulminates, Gunpowder, Matches, Nitro compounds.	Aerated beverages, Capsules, Disinfectants, Extracts, Hair dyes and tonics, Insecticides, Internal remedies, Plasters, Topical remedies, Veterinary.	<i>Class 99.—Preserving.</i>
<i>Class 71.—Fertilizers.</i>	<i>Class 87.—Oils, fats, and glue.</i>	Antiseptics, Apparatus, Cold, Desiccation, Egg-testers, Embalming, Exclusion of air, Food compounds, Fumigation, Panification, Wood saturation.
Apparatus, Compositions, Organic, Phosphates, Sewage and night soil.	Adhesives, Artificial butter, Barrel-linings, Bleaching, Candles and apparatus, Decomposing fats, Detergents, Extracting oils, Glue, Lard-coolers, Lubricants, Lubricants, treating oils for,	

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the chemical division of the Patent Office, Department of the Interior :

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Applications	115	921	914	122	989	1,028	83	1,332	1,275	140	190	162	177
Amended cases.....	130	1,069	1,108	130	1,660	1,696	55	1,563	1,482	136	236	265	107

The following statement shows in detail the business in the chemical division of the United States Patent Office for the years 1884, 1885, 1886, and 1887, (to March 1.)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	169	192	200	198	170	188	176	150	151	205	139	204
1885.....	219	187	247	238	208	238	258	256	189	171	212	197
1886.....	189	167	241	232	229	207	180	119	204	213	259	214
1887 (to March 1)	234	193	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Actions upon all applications.

The following statement shows the average number of employes during each month of the years named :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	5	5	6	6	6	6	6	5	6	6	6	6
1885.....	6	6	6	6	5	6	6	6	6	6	6	6
1886.....	6	6	7	7	7	7	6	6	7	7	7	7
1887 (to March 1)	7	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the amount of business transacted and disposed of by the employe doing the most and the employe doing the least during each month of the following years :

MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	60	85	71	64	55	74	80	36	80	61	47	116
1885.....	100	86	100	105	72	105	103	110	104	83	99	75
1886.....	70	63	100	100	85	88	67	55	93	82	104	66
1887 (to March 1)	64	89	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MINIMUM.

1884.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7
1885.....	16	11	19	7	18	7	28	22	9	4	21	10
1886.....	12	10	15	7	14	2	14	11	9	8	13	9
1887 (to March 1)	13	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The reason why such account was not kept in this division prior to December 1, 1884, is, that order No. 200, directing the examiners to keep (in addition to the usual monthly report) a daily record of the work performed in their respective divisions, and report the same to the Commissioner, was not issued until November 29, 1884; therefore the first report was made under such order, January 1, 1885.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods

specified, by the employés in the chemical division of the United States Patent Office, Department of the Interior :

Year.	Number of employés.	Average number of days present.	Average number of hours employed daily.	Number by proxy.
1884.....	5 $\frac{3}{4}$	276 $\frac{3}{5}$	7	In person.
1885.....	5 $\frac{1}{2}$	295 $\frac{1}{2}$	7	Do.
1886.....	6 $\frac{2}{3}$	281 $\frac{1}{4}$	7	Do.
1887 (to March 1)	7	48 $\frac{2}{3}$	7	Do.

Statement of the chemical division of the United States Patent Office, showing the methods adopted in transacting the principal business matters, beginning with the receipt of the matter by the Department, or by any of the agents of the Department, and giving in consecutive order the various steps taken by each of such business matters through the various divisions of the office and the various bureaus and divisions of such bureaus, and employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

Chemical division, No. 6, is devoted to the examination of applications for letters patent regarding the consideration of inventions more or less dependent on the progress of chemistry as an industrial art.

On the reception of such applications the assignment of them to the several assistants is made daily by the examiner. The order of examination is twofold :

First, upon the form (of the papers submitted).

Second, upon the merits (of the invention as claimed).

Examinations upon the form always precede the consideration of the description of the invention and the claims thereon.

The office book prepared for the purpose, entitled Rules of Practice, is the guide in the first part of this examination, and the first letters forwarded to the applicant are devoted, in great part, to the primary necessity of clearing away obscurities, so as to present the nature of the invention in a clear and intelligible form, and should contain such description of the invention claimed as will clearly set forth, after the relation of the invention itself, such minute information as will develop two points in the history of the claim :

First, proof of its novelty.

Second, proof of its utility.

Upon the establishment of which depends the obtaining of a patent.

As the office is not limited in the granting of patents to inhabitants of this country, applications are accepted from and patents granted to the civilized world, and therefore the examination of all applications before this office involves not only (upon the examiners) an acquaintance with the nature and progress of industry in various foreign countries, but also a consequent acquaintance with the language of science in foreign countries, and demands corresponding literary education from the examiners in this division of the Bureau.

There are not less than half a dozen patent offices in Europe in relation with the library of this office, the reports from which it becomes necessary for the assistant examiner to search through and ascertain what new inventions have been discovered and adopted there; and it may be stated that many of our most useful and valuable inventions (in a pecuniary point of view) have been derived from abroad.

The class of assistants required for this especial branch of inventions claimed demands the possession of a knowledge of European languages, as well as of the progress of modern science, which the salaries offered do not tempt the possessors to accept, and consequently the Department finds it difficult to obtain a class of officers of the highest merit suitable for this office.

With regard to the work itself presented, very many of the applications made in this division are not capable of illustration by drawings, and this fact shows the necessity of the examiner's bestowing more time and labor on the consideration of the references drawn from printed descriptions, which involves the consumption of much more time in each case than is bestowed in many other divisions, where drawings are more frequently called for and supplied, and hence it happens that the time occupied with the consideration of one case of this character may of necessity involve twice or thrice the time occupied with a well-illustrated case in another division. This should be taken into consideration in contrasting the work done in one division when compared with another.

It may, perhaps, now have been made sufficiently apparent the extent over which examination stretches to determine what is absolutely new, and some idea formed of the time required for correctly carrying out this. But, generally speaking, this time is not allowed by the present mode of conducting examinations, and when returns are

called for to show the state of various rooms this consideration of time is not taken into account; certain rooms are said to work slowly, and complaint of this slow work is made by applicants, and thus the interests of the patent act, requiring the examinations, are rendered nugatory by the persistent pressure made, whose results lead to the more or less practical abolition of thorough examination by the examiner, and thus in many of the worthiest patents a germ of litigation is deposited when the patent comes out, and the consequent result of this haste by which examiners are pressed to push forward the examination of applications is to make the examinations more slight and cover less ground. This haste has the general effect to depreciate the character of the office work and lessen the value of patents very considerably.

It is to be regretted that any work of the Government should be carried out the effect of which will be to increase the actual amount turned out at the expense of careful consideration and exact knowledge, having for their object the improvement of the useful arts.

The development of art and manufactures has wonderfully enlarged, and the demand of the civilized world correspondingly increased.

Invention has been stimulated and educated minds of the world have amicably united, and the result of all this is to throw upon the examiner such a flood of material for examination that he feels always of late under a strain in his efforts to correctly estimate the value of the evidence for and against the claims presented—the value of the claims depending on the examination bestowed upon them both before and after correction. The number of cases allowed by the examiner nor the shortness of the time embraced in examination is no test of the efficiency of such examiner, nor is it any proof of the value of the efforts of the office to foster invention and develop the useful arts. In contrasting the time and labor called for in the examination of patent applications with that of many other actions made in the offices of Government, it should always be remembered that much of the merit of the invention claimed depends on the amount of novelty shown, and that this novelty is developed by the examination; that the examination is more searching in this office than in those of other countries, the chief functions of which are offices of registry and not dependent upon the development of the arts, and at times efforts are made by interested parties in this country to break down the principle of examination upon the merits, and reduce the Patent Bureau into a simple recording office.

HARVESTER (SEVENTH) DIVISION.

Report of the harvester (seventh) division of the Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 13, 1887.

The following statement shows the principal items of business transacted in the harvester division of the Patent Office, Department of the Interior:

The business of this division consists exclusively in the examination of applications for patents for the following inventions:

Class 56.—Harvesters. (VII.)

1. Bean harvesters.	Hand-binders—	Revolving rakes—
Binders—	54. Elevated delivery, side,	80. Flop-over,
35. Compressors,	55. Flat delivery,	81. Wheel.
36. Grain-adjusters,	56. Manual traction.	27. Scythes and cradles.
37. Sheaf-carriers.	12. Hand rakers.	24. Seats.
2. Clover-harvesters.	13. Hay-caps.	Self-binders—
3. Combined rakes and tedders.	Hay-loaders—	82. Clips and prepared bands,
Corn-harvesters—	61. Endless-belts,	83. Cord-knotters,
38. Binders and droppers,	62. Intermittent,	84. General structure,
39. Cutters,	63. Lifting-reels,	85. Gleaners and binders,
40. Implements,	64. Walking-rakes.	86. Tension and take-up de-
41. Strippers and huskers.	100. Headers.	87. Twisters and tuckers,
5. Corn-shoekers.	16. Hedge-trimmers.	88. Wire-twisters.
6. Cotton-harvesters.	17. Hemp and flax harvesters.	Self-rakers—
Cutting apparatus—	Horse-rakes—	89. Endless-carriers,
42. Endless,	65. Draft-dumpers,	90. Gaveling-tongs,
43. Guard-fingers and finger-	66. Drags,	91. Platform movement,
bars,	67. Hand-dumpers,	92. Reciprocating horizontal
44. Reciprocating,	68. Hay-coekers,	curvilinear,
45. Rotary,	69. Rake-teeth.	93. Reciprocating horizontal
46. Vibrating.	19. Lawn-mowers.	rectilinear,
Droppers—	20. Manure-forks.	96. Rotary horizontal axis,
47. Direct-tilting,	33. Miscellaneous.	94. Rotary vertical axis,
49. Miscellaneous,	Mowers—	switch,
48. Opening and closing,	70. Anomalies,	95. Rotary vertical axis, no
50. Side-delivery,	72. Center-cut,	switch,
51. Swinging and tilting.	73. Front-cut, one-wheel,	98. Traveling horizontal irreg-
99. Fruit-gatherers.	74. Front-cut, two-wheels,	ular path,
9. Gearing.	76. Rear-cut, one-wheel,	97. Traveling vertical irregular
10. Grain-bands.	77. Rear-cut, two-wheels,	path.
31. Grain wheels and casters.	75. Reciprocating-gear,	28. Tedders.
Hand-binders—	78. Thrust-cut.	29. Thrashers,
52. Attachments,	32. Platform adjustments.	30. Track-clearers and dividers.
53. Elevated delivery, rear,	22. Reels.	

Statement showing in detail the methods of transacting business in the harvester division of the Patent Office in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

The business of all the examiners' divisions is alike. It consists exclusively in examining applications belonging to the classes in the respective divisions, and such duties as are incidental thereto.

Applications are received each day from the application division. They are first inspected by the examiner to determine whether the application clerk has properly assigned them. If not, they are returned to him. If properly belonging to the division, they are assigned to the proper sub-class, recorded in the "examiner's register," and pigeon-holed in the order of their filing, to be taken up in that order for action.

The work of the division is usually divided up among the assistant examiners, certain sub-classes being assigned to each. Every action made is approved and directed by the primary examiner and is *his* action. An assistant's first duty in examining a case is to determine whether or not it is in all respects in proper form. If the formal objections are not vital, and the condition of the case will permit of an examination upon the merits, the assistant proceeds therewith, first studying carefully the invention claimed, then searching among the foreign and domestic patents, publications, &c., for anticipations thereof. The result of this step in the examination is submitted to the primary examiner at an oral interview.

He determines the propriety of the objections to form discovered, and the sufficiency under the law of the references found, and, in accordance with his directions, the assistant writes a letter stating the formal defects and citing the references to show the state of the art. This letter is signed by the primary examiner (and usually by the assistant, too), press-copied in a book kept for that purpose, and put in the file wrapper of the application, and is thenceforth a part of the record. A copy is sent to the applicant in care of his attorney, if he have one. The action is then noted on the "examiner's register," and the case pigeon-holed to await the responsive action of the applicant, which must be taken within two years, or the application is abandoned under the law. The case is then not reported on the report of work on hand, because it is not a case "awaiting action" by the office. If it becomes abandoned this fact is noted on the "register" and the file and drawing sent to the division having custody of such cases. If action is taken, however, within the statutory period, it is again included in the work report, and comes up for reconsideration, in view of its altered condition, in regular order as before. If in its amended condition the form is acceptable and its substance allowable under the law, the examiner signs his name on the face of the file-wrapper and forwards it to the issue and gazette division. If not yet in proper form, however, a letter is written as before repeating the requirements made in the first office letter in regard thereto without any treatment upon the merits. From this decision appeal may be taken to the Commissioner in person. If form is acceptable, but substance not allowable, a letter is written formally rejecting such claims as are not, and stating that such and such will be ultimately allowed. From a decision rejecting a claim a second time upon the same references, appeal lies to the Board of Examiners-in-Chief. In case appeal is taken upon matter of form or substance it is submitted to the examiner for an answer or statement of the references and grounds for his action. The process above outlined is repeated until the claims of the application are in the judgment of the examiner allowable under the law, or he is required to pass the case by being overruled by the board or the Commissioner, and it often extends over a period of some years.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below in the harvester division of the Patent Office, Department of the Interior:

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Applications.....	295	1, 442	1, 158	579	2, 163	2, 321	421	2, 500	2, 719	202	529	562	169
Caveats.....	90	90	.....	.....	57	57	.....	60	60	.....	4	4	.....

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employés in the harvester division of the Patent Office, Department of the Interior :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884	70	81	114	95	88	84	113	85	97	100	88	143
1885	172	146	256	239	185	185	244	267	211	172	191	153
1886	183	135	232	199	184	236	252	230	230	301	245	293
1887	292	270	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the average number of employés in the harvesters division of the Patent Office, Department of the Interior, during the periods specified :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884	6.25	6.5	6.5	6.5	6	6	6	6	6.75	7	7	7
1885	7	7	6.75	7	6	6	6.75	7	7	7	7	7
1886	8	8	8	8	8	8	7	6.5	8	8	8	9
1887 (to March 1)	9	9	9	.....	.....	.....	.....	.....	.....	.....	.....	.....

This table gives the average number of employés on the rolls of the division for the months specified. It includes all the employés, examiners, clerks, &c., and no account has been taken of absences.

The following statement shows the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified, in the harvester division of the Patent Office, Department of the Interior :

EMPLOYÉ DOING THE MOST—MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884 .....	.....	.....	16	37	29	31	37	24	25	31	22	35
1885	43	36	77	64	63	69	68	53	66	55	60	46
1886	53	31	88	80	40	70	65	59	67	75	50	54
1887 (to March 1)	51	52	73	.....	.....	.....	.....	.....	.....	.....	.....	.....

EMPLOYÉ DOING THE LEAST—MINIMUM.

1884 .....	.....	.....	2	5	5	5	17	10	5	1	2	13
1885	8	11	22	15	2	34	34	8	10	15	10	12
1886	6	9	34	20	32	24	34	36	30	32	28	28
1887 (to March 1)	32	27	38	.....	.....	.....	.....	.....	.....	.....	.....	.....

I find no records from which this statement can be carried back of March, 1884. The rules of the office did not require and in the general course of business none appears to have been kept.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the harvester division of the Patent Office, Department of the Interior :

Year.	Number of employés.	Average number of days present.	Average number of hours employed daily.	Number by proxy.
1884	5 $\frac{1}{3}$	279.1	7	0
1885	5 $\frac{5}{6}$	259.4	7	0
1886	5.9	271.7	7	0
1887 (to March 1)	7	47.1	7	0

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the harvester division of the Patent Office, Department of the Interior, during the periods specified :

	1884.	1885.	1886.	1887 (to March 1).
Maximum number of days.....	290	279	290	76
Minimum number of days.....	267	218	281	75

EIGHTH DIVISION.

Report of the eighth division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee and called for by Department circular of March 23, 1887.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the eighth division of the Patent Office, Department of the Interior :

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Mar. 1, 1887.
Examination of applications...	387	3,534	3,274	647	6,813	7,277	183	6,026	6,046	174

The figures relate to old and new cases.

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified by the employés in the eighth division of the Patent Office, Department of the Interior :

Character of business.	Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Examination of applications.....	1884	50	41	41	34	43	39	39	35	32	35	27	46
Do.....	1885	58	50	128	117	116	110	99	84	103	108	105	88
Do.....	1886	106	101	114	94	72	69	66	78	59	76	77	105
Do.....	1887	94	84	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

This statement refers to examiners only. Figures represent the average of each assistant examiner.

The following statement shows the average number of employés in the eighth division of the Patent Office, Department of the Interior, during the periods specified :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	6	6	6	6	6	5	6	5	6	7	7	8
1885.....	7	6	6	6	6	6	7	6	6	6	6	6
1886.....	6	6	6	6	6	6	6	5	5	5	6	6
1887 (to March 1).....	6	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Includes all employés.

The following statement shows the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified, in the eighth division of the Patent Office, Department of the Interior :

Year.	Examination of applications. Employé doing the most. Maximum.											
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1885.....	114	75	164	234	292	239	252	166	181	170	154	149
1886.....	166	146	155	142	133	115	107	105	100	137	142	174
1887 (to March 1).....	161	118	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

[Examination of applications. Employé doing the least. Minimum.]

1885.....	32	31	72	40	43	81	71	28	23	39	91	42
1886.....	89	99	99	87	39	45	58	71	45	44	66	45
1887 (to March 1).....	32	37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

No record prior to January, 1885. Figures relate to actions in old and new cases.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the eighth division of the Patent Office, Department of the Interior :

Year.	Number of employés.	Average number of days present.	Average number of hours employed daily.	Number by proxy.
1884.....	6	266	7	None.
1885.....	6	262	7	None.
1886.....	6	271	7	None.
1887 (to March 1).....	6	47	7	None.

Includes examiners and clerks.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days, in the eighth division of the Patent Office, Department of the Interior, during the periods specified :

	1884.	1885.	1886.	1887 (to March 1).	Character of business.
Maximum number of days.....	273	274	285	48	Examination of applications.
Minimum number of days.....	236	245	267	45	Do.

NINTH DIVISION.

Report of the ninth division, Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

The following statement shows the amount of business transacted and disposed of by the employé doing the most and the employé doing the least during each month of the years named :

MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1885.....	198	155	224	242	142	135	124	140	97	161	116	94
1886.....	125	96	140	115	130	143	140	129	156	111	140	107
1887 (to March 1).....	158	128	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MINIMUM.

1885.....	63	53	61	89	67	77	12	38	48	6	32	19
1886.....	58	57	64	48	53	79	72	57	58	63	46	42
1887 (to March 1).....	61	65	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

No data for 1884.

The principal causes of variation of the actions made are threefold, to wit: Differences in difficulty in cases handled, absences, and experience as skilled experts. This latter cause probably is more telling than the other two combined.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the years named; also the number of days devoted to business by the employé present for the greatest number of days and employé present for the least number of days during the following years:

Year.*	Average No. of days.	Hours daily.	Maximum No. of days.	Minimum No. of days.
1884.....	279 $\frac{6}{8}$	7	307	256
1885.....	277 $\frac{1}{3}$	7	306	253
1886.....	282 $\frac{1}{2}$	7	307	256
1887 (to March 1)	45 $\frac{1}{2}$	7	48	42

* Standard, 307 working days.

The following statement shows in detail the business in the class of hydraulics, division 9 of United States Patent Office, for the years 1884, 1885, 1886, and 1887, (to March 1):

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1885.....	104 $\frac{5}{7}$	75 $\frac{5}{7}$	94 $\frac{1}{7}$	113 $\frac{2}{7}$	84 $\frac{1}{7}$	84 $\frac{1}{7}$	80 $\frac{1}{7}$	64 $\frac{2}{7}$	62 $\frac{3}{7}$	71 $\frac{1}{7}$	67 $\frac{4}{7}$	58 $\frac{7}{7}$
1886.....	78 $\frac{1}{7}$	66 $\frac{2}{7}$	86 $\frac{6}{7}$	82 $\frac{1}{3}$	71 $\frac{1}{3}$	93 $\frac{2}{3}$	96 $\frac{1}{2}$	65 $\frac{2}{3}$	85 $\frac{5}{8}$	71 $\frac{2}{3}$	81 $\frac{5}{6}$	65 $\frac{1}{2}$
1887 (to March 1)	86 $\frac{1}{8}$	73 $\frac{1}{8}$	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The principal examiner, Mr. Brown, was on duty in the interference department as acting examiner of interference from the middle of August, 1886, to the first of January, 1887, during which time an assistant examiner was necessarily in charge of the class, which accordingly diminished the quantity of work done during this time, and correspondingly reduced the force.

The following statement shows the average number of employés during each month of the following years:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	8	8 $\frac{1}{4}$	9 $\frac{1}{8}$	8	8 $\frac{1}{5}$	8	8 $\frac{1}{4}$	9	8 $\frac{1}{4}$	9	9	11
1885.....	12	10 $\frac{1}{2}$	10	11	11	11	11	11	11	10 $\frac{3}{4}$	11	11
1886.....	11	11	10	10	10	10	10	10	9 $\frac{1}{4}$	9 $\frac{1}{5}$	10	9 $\frac{1}{2}$
1887 (to March 1)	9	9 $\frac{1}{4}$	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Statement showing the principal items of business transacted in the ninth division of the Patent Office.

The classification and examination of applications for patents and caveats filed in the classes of aeration and bottling, baths and closets, fire-engines, hydraulic motors, hydraulic motors for elevators, hydraulic motors for presses, hydraulic motors for jacks, pumps, and water distribution, answering appeals to the board of examiners-in-chief, declaration of interferences, reports to the Commissioner and to committees.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in division 9, class of hydraulics, in U. S. Patent Office:

Character of business.	New cases pending Jan. 1, 1884.	New cases received during 1884.	New and old cases disposed of in 1884.	New cases pending Jan. 1, 1885.	New cases received during 1885.	New and old cases disposed of in 1885.	New cases pending Jan. 1, 1886.	New cases received during 1886.	New and old cases disposed of in 1886.	New cases pending Jan. 1, 1887.	New cases received in 1887 to Mar. 1.	New and old cases disposed of in 1887 to Mar. 1.
Treatment of applications for patents	420	1,866	4,937	403	1,791	6,748	66	1,684	5,804	70	285	956

The difference between the amount received and disposed of is accounted for by amended cases received during the year.

The entire force worked many extra hours with a view of decreasing arrearage during this year.

TENTH DIVISION.

Report of the tenth division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee and called for by Department circular of March 23, 1887.

The following statement shows in detail the business in the tenth division of the Patent Office for the years 1884, 1885, 1886, and 1887 (to March 1) :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	459	511	559	561	536	487	575	371	454	505	276	357
1885.....	700	405	606	658	763	736	594	604	618	531	529	540
1886.....	559	565	682	613	563	650	443	591	603	408	500	458
1887 (to March 1).....	491	383	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the average number of employes during each month of the years named :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	5.7	5.9	5.9	5.7	5.7	5.1	5.9	5.4	5.6	5.7	4.2	4.3
1885.....	5.9	5.1	5.9	6.7	6.9	6.8	6.	6.	6.5	5.4	5.3	6.4
1886.....	6.9	6.8	6.9	6.2	6.7	6.9	5.7	5.8	5.8	6.7	6.8	6.7
1887 (to March 1).....	6.8	5.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The time of each examiner, for the year, is taken from the weekly time reports.

The average is obtained by dividing the total number of days employed by the number of examiners.

The clerical force is not included in the first table of this sheet, but is included in the second.

The following statement shows the amount of business transacted and disposed of by the employe doing the most and the employe doing the least during each month of the following years :

MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	138
1885.....	166	130	147	194	200	214	162	170	183	153	202	170
1886.....	182	163	184	175	138	235	142	212	178	123	143	130
1887 (to March 1).....	127	118	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MINIMUM.

1884.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	40
1885.....	154	32	58	74	77	73	27	89	91	98	50	73
1886.....	85	85	127	121	107	107	113	84	92	45	68	71
1887 (to March 1).....	92	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

No personal work report was required prior to December, 1884.

These figures represent new applications for patents, caveats, cases returned to the office for reconsideration, accompanied either by amendment, argument, correction, or request for reconsideration.

Declarations of interferences, renewed cases, reissues, and appeals are also included.

The clerical force is not included in this sheet.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the years named, also the number of days devoted to business by the employé present for the greater number of days and employé present for the least number of days:

Year.	Average No. of days.	Hours daily.	In person or by proxy.	Maximum No. of days.	Minimum No. of days.
1884	278	7	In person.....	290	231
1885	289	7	....do	295	282
1886	288	7	....do	294	281
1877 (to March 1).....	45	7	....do	52	32

The time devoted to business by each employé (including clerical force) is taken from the weekly time reports; and the total number of days employed divided by the number of employés, to obtain the average.

Statement showing the principal items of business transacted in the tenth division of the Patent Office.

Examination of applications for patents.

Examination of caveats.

Reconsideration of rejected applications, if amended or returned, and a patent demanded.

Preparation of a statement in case the inventor appeals from the decision of the examiner to the examiners-in-chief, or to the Commissioner in person.

In case applications conflict and claim the same subject-matter, the examiner institutes interference proceedings.

Motions to dissolve an interference are heard by the primary examiner.

The assistant examiners search for references and evidence as to patentability, and present the case to the principal examiner, with the evidence collected; and from the decision arrived at an action is made, and the inventor is informed by the Commissioner.

The lady clerk of the division enters each day in the register the applications received, after it is ascertained to which division they properly belong. She records all actions of the office in the register (the office action and the inventor's are recorded upon the back of the file), makes all proper amendments or changes in the case, directed by the inventor; copies all office letters and prepares them for mail; copies all statements, decisions, reports, &c., stamps and properly numbers file and drawing, and all papers, and records the patents, each week, in their proper column in the register. She keeps account of all cases called up or sent out of the room, and receives and disposes of them on their return.

She also makes up the daily, weekly, and monthly reports of time and work to the Commissioner.

Statement of the tenth division of the Patent Office, showing the methods adopted in transacting the principal business matters, beginning with the receipt of the matter by the Department or by any of the agents of the Department, and giving, in consecutive order, the various steps taken by each of such business matters through the various divisions of the office and the various Bureaus, and divisions of such Bureaus, and employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

Applications for letters patent and caveats, as they are received each day from the application division, are inspected to ascertain to which division they properly belong, and are then recorded in the register by the lady clerk, who places the serial number and book number upon the drawing and papers. The case is then ready for examination and is taken up in the order of its date of filing and examined as to novelty, utility, clearness of description and illustration, formality of petition, oath, signatures, &c., and the inventor or his attorney is informed of the office decision. The case, if rejected, then awaits the inventor's action. If allowed for grant of patent the case receives the signature of the examiner in charge, and is sent to the issue division, where it is prepared (on payment of the final fee) for the printer and photolithographer.

When the inventor amends, or requests a reconsideration, the case is again taken up, the amendment or argument considered, and a decision rendered, as before.

In case the inventor appeals to the board of examiners-in-chief or to the Commissioner, the examiner prepares a statement (in reply to the "reasons of appeal") to accompany the case.

When two or more pending cases or pending case with unexpired patents have conflicting claims, the examiner forwards to the examiner of interferences notice of interference (together with the files and drawings) for all the parties; and if the issue has been well defined and the notices are correct, the interference is declared, *pro forma* by forwarding the notices to the several parties.

After the decision of the examiner of interferences (upon evidence submitted or upon the record) as to which party is the prior inventor, the cases are returned to the primary examiner, and further action taken in accordance with such decision.

Motions to dissolve an interference are heard and decided by the primary examiner.

Applications for reissue of letters patent are considered by the primary examiner, and are also subject to appeal, interference, correction, or amendment.

Cases renewed after forfeiture for non-payment of the final fee, are entered and examined with the new cases.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the tenth division of the Patent Office, Department of the Interior:

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received in Jan. and Feb., 1887.	Disposed of in Jan. and Feb., 1887.	Pending Mar. 1, 1887.
Examination of applications for patents.....	141	5, 823	5, 631	333	7, 200	7, 282	251	6, 569	6, 635	185	936	874	247

These figures represent new applications for patents, caveats, cases returned to the office for reconsideration accompanied either by amendment, argument, correction or request for reconsideration.

Declarations of interference, renewed cases, reissues, and appeals are also included.

ELEVENTH DIVISION.

Report of the eleventh division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the eleventh division of the United States Patent Office, Department of the Interior.

This division receives all applications for patents properly belonging to "leather working, machinery, and products," which comprises 6 distinct classes, with 99 sub-classes.

(1) The examining corps of this division are charged with the examination and adjudication of all original applications for patents properly included in the above-named classification, and subject to appeal *only* on adverse rulings or actions.

(2) With the examination and adjudication of reissue applications pertaining to this class, subject to like appeal.

(3) The institution of interferences, when found necessary in connection with the treatment of original or reissue applications.

(4) Preparing answers to appeals from the examiner's action taken to the board of examiners-in-chief; also, furnishing statements in connection with interlocutory appeals taken to the Commissioner, and upon such other questions as may arise in the prosecution of applications before the office. Such, in brief, comprises in general outline the items of business transacted in this division, which, however, does not identify a class of intermediate actions of a varied character which cannot be specifically included in such general statement.

Statement showing in detail the methods of transacting business in the eleventh division of the United States Patent Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the United States Patent Office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same pass, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

Applications for patents daily received from the application division, properly jacketed and briefed, and each provided with its serial number, are immediately examined to determine if correctly located and provided with their respective drawings, when they are placed in charge of the examiner's clerk, who makes the appropriate record entry upon the division book, consisting of name of applicant, attorney, title of invention, date of application, serial number, &c. Such applications are then arranged in regular order for examination. The examination of an application primarily involves all matters of form relating to the general preparation of the case, that it may be brought into harmony with office rules and requirements, and if no vital defects are found, such scrutiny is followed by an examination upon the general merits of the case; the extent and nature of such examination depending largely upon the character of subject-matter embraced in the application, always, however, calling for careful consideration, and oftentimes necessitating extended research of both domestic and foreign patents, and reference to such printed publications as are liable to give information relative to the art to which the alleged invention appertains. A proper examination made, the result is communicated to the applicant by letter, giving such references and other information as shall be found necessary to a proper understanding of the condition of his case.

A copy of such letter is placed in the file for office reference. If in response to such action a proper amendment is furnished complying with office requirements, such amendment is incorporated and the case passed for issue, sent to the issue division of the office, and notice sent from such division to the applicant of the final disposition of his case. If, however, in response to such official action upon the merits of the case, the applicant shall refuse to amend and persist in maintaining his position, a second action is taken, and if upon further consideration the previous action is still regarded as pertinent and sufficient, the applicant is so advised, which action constitutes a second rejection, as provided by office rules. After such second rejection of a case upon its merits, further prosecution involves an appeal to the board of examiners-in-chief. Upon the receipt of such appeal the examiner is required to submit to the board of examiners-in-chief a written statement of his grounds of action, together with such other information as may be found necessary to a proper understanding of the matter in controversy. Upon the hearing of such appeal if the board of examiners-in-chief reverse the primary examiner's decision, the case is returned to him and the case disposed of in accordance with their decision. If, however, they sustain his action, applicant may appeal from their decision to the Commissioner, which constitutes the limit of action within the organization of the office. The foregoing embraces the ordinary course of treatment only, which is oftentimes interrupted by interferences and other collateral issues which are liable to intervene. The actions thus enumerated identify briefly the work of the examining corps as applied to the primary examination of an application for patent.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending and undisposed of at the dates specified below, in the eleventh division of the United States Patent Office, Department of the Interior :

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received in Jan. & Feb., 1887.	Disposed of in Jan. & Feb., 1887.	Pending Mar. 1, 1887.
Examining, recording, and amending applications for patents and reissues of patents, examining caveats declaring interferences, answering appeals, &c	130	7, 478	7, 495	113	6, 744	6, 720	137	6, 608	6, 596	149	1, 028	1, 026	151

The following statement shows the amount and character of business performed, transacted, and disposed of during the periods specified, by the employés in the eleventh division of the United States Patent Office, Department of the Interior :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	657	712	785	772	813	589	697	546	441	454	462	567
1885.....	587	523	511	675	614	663	580	470	565	515	519	502
1886.....	498	574	721	622	567	565	547	460	472	513	498	544
1887.....	544	482	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the average number of employés in the eleventh division of the United States Patent Office, Department of the Interior, during the periods specified :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	6½	6	6	6	6	6½	7	8	7	6	6	6½
1885.....	6	6	7	7½	7	7	7	7	7	7	7	7½
1886.....	7	7	7	7	7	7	7	7	7	7	7	7
1887 (to March 1).....	7	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Four employés belong to the examining corps and were constantly engaged in examining applications for patents, &c. The remainder of the employés of the division were engaged on clerical work, such as keeping the records, entering amendments, copying decisions, letters, &c.

The following statement shows the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified, in the eleventh division of the United States Patent Office, Department of the Interior :

EMPLOYÉ DOING THE MOST—MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884*.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885.....	250	215	206	314	175	217	244	159	204	285	233	222
1886.....	164	152	193	184	151	161	192	191	193	165	149	173
1887 (to March 1).....	189	158	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

EMPLOYÉ DOING THE LEAST—MINIMUM.

1884*.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885.....	87	72	62	71	115	135	85	102	94	4	35	52
1886.....	56	125	155	130	128	89	90	126	21	82	105	100
1887 (to March 1).....	103	68	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* No report.

The small minimum amount of work in several of the months in above statement is chargeable to leave of absence of some one employé for the whole or part of a month. In the year 1884 no account was kept of individual work, for the reason that the office rules did not require such report until January 1, 1885. The above statements relate wholly to the work of four employés who are examiners. There is no practical method of keeping an account or making a tabulated report of the miscellaneous work done by the clerks in an examiner's division.

The number of cases disposed of is by no means an index of the amount of work performed. Some cases require but a few hours labor, while others require days and even weeks in treatment.

The following statement shows the number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the eleventh division of the United States Patent Office, Department of the Interior :

Year.	No. of employés.	Average No. of days present.	Average No. of hours employed daily.	No. by proxy.
1884.....	6 $\frac{5}{2}$	263 $\frac{5}{6}$	7	In person.
1885.....	7	262 $\frac{3}{7}$	7	Do.
1886.....	7	268 $\frac{5}{7}$	7	Do.
1887 (to March 1)	7	44 $\frac{11}{28}$	7	Do.

This statement omits Sundays and holidays, and relates to actual working days. It includes all the employés in the division, both examiners and clerks.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the eleventh division of the United States Patent Office, Department of the Interior, during the periods specified :

	1884.	1885.	1886.	1887 (to Mar.1).
Maximum number of days.....	.286	277	296 $\frac{1}{2}$	48
Minimum number of days.....	193	229	209 $\frac{1}{2}$	32

TWELFTH DIVISION.

Report of the twelfth division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of, at the dates specified below, in the division of hoisting, &c., No. XII, in the Patent Office :

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
New cases.....	139	2,076	2,156	59	1,774	1,778	55	1,568	1,413	210	252	321	141
Old cases.....	27	3,992	4,003	16	3,479	3,479	16	3,371	3,362	25	608	599	34
Caveats.....		151	151		153	153		117			26	26	

The following statement shows in detail the business in the 12th division of the office of Patents, for the years 1884, 1885, 1886, and 1887 (to March 1).

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	691	509	630	572	630	659	578	590	428	244	334	447
1885.....	500	412	524	556	410	458	366	460	464	434	393	433
1886.....	371	316	290	297	234	487	609	544	547	480	265	432
1887 (to March 1)	544	511										

The preceding table indicates the number of applications (including new and old or amended cases and also caveats) acted upon during the months specified.

The following statement shows the average number of employes during each month of the years named:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	5	5	5	5	5	5	5	5	5	5	5	4
1885.....	4	4	4	4	5	5	5	5	5	5	5	5
1886.....	5	6	6	7	7	7	8	8	9	9	9	9
1887 (to March 1)	9	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the amount of business transacted and disposed of by the employe doing the most and the employe doing the least during each month of the years named:

MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1885.....	142	164	119	153	196	130	91	151	125	106	116	156
1886.....	85	93	88	80	67	96	137	121	102	90	40	115
1887 (to March 1)	104	83	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MINIMUM.

1885.....	96	67	78	109	88	45	78	22	67	45	46	17
1886.....	58	3	4	33	39	54	70	29	9	35	22	28
1887 (to March 1)	55	60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The institution of reports of the amount of business performed by each employe did not commence until the year 1885. Therefore no account can be given for the year 1884.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the years named, also the number of days devoted to business by the employe present for the greatest number of days and employe present for the least number of days:

Year.	Average number of days.	Hours daily.	In person or by proxy.	Maximum number of days.	Minimum number of days.
1884.....	272	6.9	.....	275	268
1885.....	270.8	6.96	.....	272	267
1886.....	261	6.64	.....	274	272
1887 (to March 1)	47.5	*7.4	.....	48	46½

* This average made by working extra hours.

All the employes whose work is estimated in the preceding table were examiners. Down to March, 1886, there was also one clerk employed in this division. Since that time there have been two persons doing miscellaneous clerical work. The work performed by these clerks could not be computed, because of its varied character, in any of the tabulated statements.

In 1884 no record was kept in this division of the amount of work done by the several employés individually, because the form of report called for by the Commissioner did not include such an item.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the years named, and number of days devoted to business by the employé present for the greatest number of days and employé present for the least number of days :

Year.	Average No. of days.	Hours daily.	In person or by proxy.	Maximum No. of days.	Minimum No. of days.
1884	211	7	In person.....	284	*60½
1885	262	7	...do	276	†106
1886	268	7	...do	273	‡25
1887 (to March 1).....	48.2	7	...do	52	§41

* Appointed in October, 1884.

† Transferred to another division in May, 1885.

‡ Appointed November 31, 1886, and absent (sick) nearly all of December.

§ Transferred to another division in February, 1887.

Statement showing the principal items of business transacted in the metal working division of the United States Patent Office.

(1) Examining applications for patents for inventions in the class of metal working and inspecting the caveats filed in the same class, together with such other incidental work as :

- (2) Preparing tables for trial of interfering applications;
- (3) Preparing answers to cases appealed from this division; and
- (4) Answering petitions to the Commissioner relating to cases belonging to this division.

Statement of the thirteenth division of the Patent Office showing the methods adopted in transacting the principal business matters, beginning with the receipts of the matter by the Department or by any of the agents of the Department, and giving in consecutive order the various steps taken by each of such business matters, through the various divisions of the office and the various bureaus, and divisions of such bureaus, and employés through whose hands the same passes and by whom it is considered and acted upon, and the action thereon had and taken by each until the same is finally disposed of, and notice thereof duly given to the proper party.

Applications for patents are sent to this division daily from the "application room," and when received each application is handled in the following manner: The examiner in charge of the division personally inspects each application, to determine whether it properly belongs to his division; and, if so, to what subclass in his division it should be assigned; if it is thought not to belong to his division, it is returned to the "application room" with that information; if, however, it has been properly sent to him, the examiner indicates the particular subclass to which the application belongs, and turns it over to the clerk. The clerk enters the application upon a register kept for that purpose; and after inspecting all the papers belonging to the case, gives each paper, together with the drawing, its proper book number, and then puts the application on the desk of the assistant examiner having supervision of that particular subclass. The assistant examiner takes each application up for action in the order designated by the rules, and examines * it to see if it is patentable. If any objections, either as to form or substance, occur to bar the issue of the patent, the assistant reports the same to the examiner in charge who reviews the work of the assistants, and if, in his opinion, the objections are tenable, the assistant is directed to write a letter to the applicant, setting forth fully all the objections to the case; the letter is written by the assistant as directed, is read over and signed by the principal examiner, who turns the letter over to the clerk; and this constitutes and completes an "action" on the case. The clerk then copies the letter, sends the copy to the applicant through the mail, letter-presses the original, gives it its proper number, and files it with the application to which it refers; the clerk further records the action in

* An examination by an assistant involves an inspection of all the papers belonging to the application to see whether they are in proper form; a reading of the specification and drawing to get an accurate idea of the invention claimed, and an examination of the foreign and domestic patents in that class to see if this particular invention has been anticipated.

a book kept for that purpose, and puts the application away to await further action on the part of the applicant, when the case may be called up again.

If, however, no objections exist to the issuance of the patent, this fact is certified to the principal examiner, who then reviews the case with the assistant; and if he finds the work properly done, will direct that the case be prepared for issue, and this consists of writing a "brief" to accompany the case; the principal examiner then signs the application, thus indicating the completion of the work of the examiner, and turns the application over to the clerk, who again inspects the papers, stamps the drawing, records the final action, and forwards the case to the "issue division."

FOURTEENTH DIVISION.

Report of the fourteenth division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the fourteenth division of the Patent Office, Department of the Interior.

Examination of applications for patents in the following classes:

153. Metal bending.

22. Metal founding.

150. Packing and storing vessels.

113. Sheet-metal ware, making.

140. Wire working.

The only work which has been recorded and reported is the work of assistant examiners. Hence the tables herein have been confined to these officers, and their work in order that the tables may be of some value. Notes and additional tables of each kind give the full statistics of the division whenever required.

Statement showing in detail the methods of transacting business in the fourteenth division of the Patent Office in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the Patent Office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

This division is concerned with the examination of applications for patent which are received from the application clerk, and if found to be patentable are sent from this division to the issue and gazette division. Of the course of an application before it reaches this division or after it is passed out of this division, this division knows nothing officially and cannot therefore presume to report upon such course.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the fourteenth division of the Patent Office, Department of the Interior:

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Mar. 1, 1887.
New cases	54	1,728	1,682	100	1,298	1,321	77	1,410	1,452	38
Old cases	15	2,121	2,131	5	1,956	1,958	13	2,381	2,381	3

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employés in the fourteenth division of the Patent Office, Department of the Interior:

Character of business.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.												
Examination of applications for patent.....	94 $\frac{3}{4}$	93	120 $\frac{1}{4}$	111 $\frac{3}{4}$	87	90	90 $\frac{2}{3}$	57	68 $\frac{2}{3}$	50 $\frac{1}{2}$	79 $\frac{1}{3}$	74 $\frac{2}{3}$
1885.												
Examination of applications for patent.....	82 $\frac{3}{4}$	71 $\frac{1}{4}$	70 $\frac{1}{4}$	100 $\frac{1}{3}$	80	115 $\frac{1}{3}$	76 $\frac{2}{3}$	84 $\frac{1}{3}$	85 $\frac{1}{3}$	79 $\frac{1}{3}$	85 $\frac{1}{2}$	66 $\frac{2}{3}$
1886.												
Examination of applications for patents.	102	89	114 $\frac{2}{3}$	125 $\frac{1}{3}$	121	75 $\frac{1}{3}$	86	124 $\frac{2}{3}$	93 $\frac{1}{4}$	82	61 $\frac{1}{4}$	91 $\frac{1}{3}$
1887.												
Examination of applications for patents	102 $\frac{2}{3}$	97 $\frac{1}{3}$	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

These figures represent actions made by the assistant examiners under and as superintended, controlled, and personally directed by the principal examiner in charge of the division. The work of clerks is also swallowed up in these figures.

The following statement shows the average number of assistants in the fourteenth division of the Patent Office, Department of the Interior, during the periods specified:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	*4	4	4	4	4	2	2	4	3	4	3	3
1885.....	4	4	4	3	3	3	3	3	3	3	3	3
1886.....	3	3	3	3	3	3	3	3	4	4	4	3
1887 (to March 1)	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* See the next table for the full force.

The assistant examiners are separately tabulated because their work only is classifiable and expressible in figures.

The following statement shows the average number of employés in the fourteenth division of the Patent Office, Department of the Interior, during the periods specified:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	7	7	7	7	7	5	5	7	6	7	6	6
1885.....	7	7	7	6	6	6	6	6	6	6	6	6
1886.....	6	6	6	6	6	6	6	6	7	7	7	6
1887 (to March 1)	6	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

This is the same as the foregoing table, with the addition of the principal examiner, the examiner's clerk, and generally an additional clerk.

The following statement shows the maximum and minimum amount of examinations of applications for patents disposed of by the employé doing the most and the employé doing the least during the periods specified, in the fourteenth division of the Patent Office, Department of the Interior :

EMPLOYÉ DOING THE MOST—MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	124	96	130	116	108	102	106	53	71	77	81	99
1885.....	123	92	104	143	97	113	106	88	130	101	104	72
1886.....	120	101	134	146	165	132	117	172	137	134	88	133
1887 (to March 1).....	114	90	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

EMPLOYÉ DOING THE LEAST—MINIMUM.

1884.....	21	46	85	73	55	62	82	33	34	8	25	22
1885.....	28	32	17	48	55	103	80	27	47	62	62	48
1886.....	68	56	87	87	81	79	22	96	9	22	19	57
1887 (to March 1).....	90	84	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

These figures represent actions by the assistant examiners in the form of letters addressed to the applicant.

The work of the principal examiner is to direct and control the action of each assistant examiner, to decide what that action (letter) shall be. It consequently is impossible to tabulate separately the work of a principal examiner. The same is true of all clerks. They record, copy, &c. ; no record is kept of their work. It may, however, be said that the examiner's clerk has entered an amendment in an application every time an assistant examiner has made an action, and that the examiner's clerk and the additional clerk have either copied or type-written a letter for every action by an assistant examiner. Therefore, in every month of the above table credit the examiner's clerk with one amendment entered, and the examiner's clerk and the other clerk each with, say, one-half of a letter copied. These amendments and copied letters, however, are but a part of the work of these clerks. The rest is unrecorded and unclassifiable and not expressible in figures.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the fourteenth division of the Patent Office, Department of the Interior :

Year.	Number of assistant examiners.	Average number of days present.	Average number of hours employed daily.	Number by proxy.	Number of employés.	Average number of days present.	Average number of hours employed daily.
1884.....	3.5	267	7	0	6.5	253	7
1885.....	3.25	274	7	0	60+	276	7
1886.....	3.25	279	7	0	60+	282	7
1887 (to Mar. 1).....	3	47	7	0	6	47	7

Including a principal examiner, an examiner's clerk, and an additional clerk.

The low average number of days present for 1884 is due to the fact that one clerk in this division, from January 1 to August 31, had during that time 31 days annual leave and 89 days sick leave. The average for the rest of the division for that year leaving out that one clerk was 273 days.

The following statement shows the maximum number of days devoted to examination of application, for patent by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days, in the fourteenth division of the Patent Office, Department of the Interior, during the periods specified :

	1884.	1885.	1886.	1887 (to Mar. 1).
Maximum number of days.....	285	276	281	47
Minimum number of days.....	2	52	61	47

The employé present during the least number of days in 1884 entered this division December 30.

The employé present for the least number of days in 1885 was in this division from January 1 to March 10 only.

The employé present for the least number of days in 1886 was in this division from September 4 to November 24 only.

FIFTEENTH DIVISION.

Report of the fifteenth division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

The following statement shows in detail the action on applications in the fifteenth division of the office of Commissioner of Patents, for the years 1884, 1885, 1886, and 1887 (to March 1) :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	{ 56	56	69	65	64	66	61	51	64	53	54	43
	{ 337	337	411	392	383	398	367	355	322	266	270	213
1885.....	{ 53	53	61	61	57	54	32	32	44	17	50	55
	{ 265	267	366	363	342	318	192	194	262	282	249	330
1886.....	{ 58	46	56	65	63	68	70	34	53	38	46	50
	{ 349	274	334	326	313	342	349	172	211	228	275	300
1887 (to March 1).....	{ 65	47										
	{ 392	279										

The first line of figures opposite each year indicate the totals, the second are the averages.

The following statement shows the average number of employés during each month of the years named :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	7	7	7	7	7	7	7	8	6	6	6	6
1885.....	6	6	7	7	7	7	7	7	8	8	7	9
1886.....	8	8	8	7	6	7	7	7	6	8	8	8
1887 (to March 1).....	8	8										

The following statement shows the amount of business transacted and disposed of by the employé doing the most and the employé doing the least during each month of the years named :

MAXIMUM.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....												93
1885.....	84	61	98	85	50	52	50	52	81	75	91	117
1886.....	102	80	132	143	124	82	94	78	85	84	79	78
1887 (to March 1).....	71	63										

MINIMUM.

1884.....												44
1885.....	34	43	44	48	18	3	18	3	8	5	14	38
1886.....	62	41	15	19	1	44	47	3	28	4	13	32
1887 (to March 1).....	49	21										

Consisted of actions on applications.

No report of personal work was required or made before December, 1884.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the years named, also the number of days devoted to business by the employé present for the greatest number of days and employé present for the least number of days:

Year.	Average No. of days.	Hours daily.	Maximum No. of days.	Minimum No. of days.
1884.....	277	7	295	274
1885.....	265	7	274	249
1886.....	275	7	288	253½
1887 (to March 1).....	46¾	7	47¾	36½

Statement showing the principal items of business transacted in the fifteenth division of the Patent Office.

1. DUTIES OF EXAMINER.

1. Preliminary examination and distribution of cases and papers filed therein.
2. Hearing and deciding upon cases examined and reported for his action by assistants.
3. Classifying patents and publications.
4. Attending to oral arguments and interviews with applicants and attorneys concerning cases pending before him.
5. Determining as to the fact of interference between conflicting applications; declaring such interference; deciding the motions to dissolve such interference.
6. Answering appeals.
7. Reviewing and signing cases prepared for allowance
8. Examining cases personally as time permits.
9. General supervision of the work of the division.

2. DUTIES OF ASSISTANTS.

1. Examining cases as to form and noting all objections thereto.
2. Making searches in the classified patents and other publications as to the novelty of the invention.
3. Preparing the letter or the materials therefor announcing the results of the examination.
4. Reporting the same to the examiner.
5. In the case of the first assistant, performing the duties of the examiner during his absence.

3. DUTIES OF THE CLERK.

1. Recording applications and caveats received and the actions made therein.
2. Copying and recording letters from the examiner to the applicant and preparing them for the mail.
3. Recording and entering amendments and letters from applicants.
4. Arranging and distributing files and drawings of applications; getting them out when needed and returning them; stamping files and drawings; making lists of patents, &c.
5. Making out the daily, weekly, and monthly reports of the work performed and on hand and of the attendance of the employés of the division.

Statement of the fifteenth division of the Patent Office, showing the methods adopted in transacting the principal business matters, beginning with the receipt of the matter by the Department or by any of the agents of the Department, and giving in consecutive order the various steps taken by each of such business matters through the various divisions of the office and the various Bureaus and divisions of such Bureaus, and employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each until the same is finally disposed of and notice thereof duly given to the proper party.

1. Fee and essential parts of complete application or caveat received by financial and application clerks.
2. Completed case sent forward to examiner, with date of completion marked on the face of the file. Case entered on examiner's record and placed on the docket for examination in the order to which its filing, date, or other circumstances entitle it under the rules.

3. When reached, cases carefully read by assistant, examined as to all matters of form, notes made of all defects and objections. The search is then made to ascertain whether the invention claimed is anticipated by earlier inventions of which the office possesses records or knowledge, and in what particulars it is so anticipated. Assistant then submits the case to the examiner, and a letter is prepared embodying the results of the examination; but if the case is correct in all particulars and the claims are found to be new it is prepared for allowance.

4. The letter is copied, the copy mailed, the original retained in the file, the action recorded on the books, and the papers put away to await the response of the applicant to the letter.

5. When applicant responds by amendment or letter the communication is incorporated with the record by the clerk, further considered by the assistant, taking precedence over new cases, and, if all objections have been removed, the case is prepared for allowance. If the objections have not been removed, the applicant, after one repetition of the examiner's action in matters of form, may petition the Commissioner to reverse the examiner's action, or, after two refusals on the same ground to grant a patent, may appeal to the examiners-in-chief to reverse the action of the examiner.

6. In case of either petition or appeal the examiner prepares a statement in writing of the grounds of his final action in the case. If his action is overruled or reversed the case is proceeded with as if the objections overruled had not been urged. If affirmed, the examiner enforces compliance with the requirements.

7. When all objections have been removed, in whatever way, the examiner causes the files to be searched to ascertain if any pending applications or caveats conflict with the case, and if so, notifies the caveator, or prepares letters notifying both applicants or their attorneys of the nature and extent of the interference, and sends the cases forward to the examiner of interferences, who ascertains if the issue has been clearly defined, and notes upon the letters the date before which the preliminary statements of both applicants must be filed. From this time until the termination of the interference the case is in the hands of the examiner of interferences or his subordinates, except in case of suspension, motion to dissolve, or other special reason for which the cases are returned to the examiner for his determination of questions falling within his province.

8. Upon the allowance of an application, the case is prepared for issue, the allowance recorded, and the papers sent forward to the issue division by which the applicant is informed of all the allowance of his case, and the date of allowance, and notified to pay the final fee within the following six months. If he does so within the required time the specification is printed, the drawing reproduced by photolithography, the patent prepared and mailed to him, and the issuance thereof, with a brief explanation of the invention, announced in the Official Gazette of the date of issue of the patent.

9. If applicant fails to pay the fee within the six months and the patent is forfeited under R. S. 4885, the papers are so marked and returned to the examiner, until such time as the application becomes abandoned by failure to further prosecute (R. S. 4894,) or is renewed under R. S. 4897. The files and drawings of all abandoned cases and expired caveats are in the care of the chief draftsman.

10. The caveats, upon reception in the examiner's room, are examined to ascertain if the papers are in proper form and an intelligible disclosure made of the invention, and referred to from time to time to prevent the inadvertent issue of an interfering application filed during the life of the caveat.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending and undisposed of, at the dates specified below, in division fifteen in the office of Commissioner of Patents:

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
New application	139	1,993	1,955	177	1,723	1,643	257	1,647	1,771	193	233	249	177
Amended application	39	2,028	2,015	52	1,694	1,711	35	1,661	1,636	60	321	286	95
Caveats .....	.....	147	147	.....	129	129	.....	138	138	.....	26	26	.....

EMPLOYÉ DOING THE LEAST—MINIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....												9
1885.....	9	15	24	17	23	12	3	10	17	7	14	14
1886.....	9	12	9	39	41	37	21	4	24	11	41	12
1887 (to March 1).....	32	53										

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the sixteenth division of the United States Patent Office, Department of the Interior :

Year.	Number of employés.	Average number of days present.	Average number of hours employed daily.	Number by proxy.
1884.....	8	260.8	7	In person.
1885.....	9	271.5	7	Do.
1886.....	7	273.5	7	Do.
1887 (to March 1).....	5	47.6	7	Do.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the sixteenth division of the United States Patent Office, Department of the Interior, during the periods specified :

	1884.	1885.	1886.	1887 (to March 1).
Maximum number of days	275½	289	287½	50
Minimum number of days.....	73½	97½	16	45

SEVENTEENTH DIVISION.

Report of the seventeenth division of the Patent Office on the methods of business and work, as requested by Senate Select Committee and called for by Department circular of March 13, 1887.

Statement showing the principal items of business transacted in the seventeenth division of the Patent Office, Department of the Interior.

The examination of and action upon application for letters patent for inventions in the classes—11, book-binding ; 93, paper manufactures ; 101, printing ; with the examination and custody of caveats relating to said claim.

The clerical work of receiving and recording new cases, amending old cases, making list of patents granted, recording old actions made, making and mailing copies of all actions not issues, classification and custody of drawings, photolithographs, and printed specifications.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the seventeenth division of the Patent Office, Department of the Interior :

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received during 1887.	Disposed of in 1887.	Pending March, 1 1887.
Applications, new	290	925	720	495	1,045	1,333	147	1,188	1,096	239	202	437	147
Applications, old	133	1,728	1,777	84	2,618	2,529	173	2,523	2,538	158	539	565	93
Caveats.....		72	72		75	75		94	94		14	14	
Issues			421			726			613			102	

*For several months work was extended many hours into the night.

The following statement shows the average amount and character of business performed, transacted, and disposed of, during the periods specified, by the employés in the seventeenth division of the Patent Office, Department of the Interior :

Character of business.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.												
Examination of application for patents.....	30.	38.4	33.1	45.1	34.6	34.8	33.1	24.2	32.2	30.2	39.7	38.2
1885.												
Examination of application for patents.....	38.1	32.5	*72.4	*60.4	*59	50.3	62.6	52	62.2	57	46.12	43.9
1886.												
Examination of application for patents.....	63.5	41.1	47.3	47.1	43.3	65.	44.6	39.2	55.4	44.1	54	49.4
1887 (to March 1).												
Examination of application for patents.....	62.3	54.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* During these months many hours beyond the regular office hours and at night were devoted to work.

No statement is practicable as to the clerical part of the work of the division.

The following statement shows the average number of employés in the seventeenth division of the Patent Office, Department of the Interior, during the periods specified :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884*	7	8	8	8	7.5	7.5	7.	6.5	6.5	6.5	6.5	7.
1885†	7	8	7	8	8.	8.	7.5	6.	7.	7.	8.5	9.5
1886‡	9	10	10	10	10.	9.	8.5	9.	8.	9.	10.	9.
1887 (to March 1)‡	10	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* One a clerk. Most of the copying of letters was done in the copying division, until we had two clerks in October, 1885.

† Two clerks in October and November ; three in December.

‡ Three clerks.

No record is kept or can be kept from which a statement showing the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified in this division of the office, Department of the Interior, can be drawn. The number of cases upon which an employé acts is no indication of the "amount of business transacted and disposed of"—of the amount of work done in their examination and consideration.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the seventeenth division of the Patent Office, Department of the Interior :

Year.	Number of employes.	Average number of days present.	Average number of hours employed daily.	Number by proxy.
1884.....	7.17	262.7	7	None.
1885.....	7.63	297.5	7	None.
1886.....	9.03	279.5	7	None.
1887 (to March 1).....	10.05	45.5	8	None.

For several months many extra hours at night were devoted to work.

These figures represent new applications for patents, caveats, cases returned to the office for reconsideration, accompanied either by amendment, argument, correction, or request for reconsideration.

Declarations of interferences, renewed cases, reissues, and appeals are also included.

The clerical force is not included in this sheet.

The above figures are inadequate, and also misleading, as indicating the relative efficiency of employes, for the reason that the character of the work assigned to the examiners differs so materially in relation to the time required for the treatment of each case, that the one whose record shows the smallest number of actions may be more industrious and efficient than the one who disposes of the largest number. Also, in the work of every division there is a great amount of miscellaneous work which cannot be credited by figures, which often devolves mostly on one of the assistant examiners, who necessarily has less time for the more regular work that can be credited in the daily report.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the years named, also the number of days devoted to business by the employe present for the greatest number of days and employe present for the least number of days :

Year.	Average No. of days.	Hours daily.	Maximum No. of days.	Minimum days.
1884.....	270	7	280	236
1885.....	278	7	281	273
1886.....	282	7	278	269
1887 (to March 1)	47	7	48	47

Statement showing the principal items of business transacted in the eighteenth division of the Patent Office.

Examination of applications for patents.

Examination of caveats.

Reconsideration of rejected applications, if amended or returned, and a patent demanded.

Preparation of a statement in case the inventor appeals from the decision of the examiner to the examiners-in-chief or to the Commissioner in person.

In case applications conflict, and claim the same subject-matter, the examiner institutes interference proceedings.

Motions to dissolve an interference are heard by the primary examiner.

The assistant examiners search for references and evidence as to patentability, and present the case to the principal examiner, with the evidence collected, and from the decision arrived at an action is made, and the inventor is informed by the Commissioner.

The lady clerk of the division enters each day in the register the applications received, after it is ascertained to which division they properly belong. She records all actions of the office in the register (the office action and the inventor's are recorded upon the back of the file); makes all proper amendments or changes in the case directed by the inventor; copies all office letters and prepares them for mail; copies all statements, decisions, reports, &c.; stamps and properly numbers file and drawing and all papers, and records the patents each week in the proper column in the register. She keeps account of all cases called up or sent out of the room, and receives and disposes of them on their return. She also makes up the daily, weekly, and monthly reports of time and work to the Commissioner.

Statement of the eighteenth division of the Patent Office, showing the methods adopted in transacting the principal business matters, beginning with the receipt of the matter by the Department or by any of the agents of the Department, and giving in consecutive order the various steps taken by each of such business matters, through the various divisions of the office and the various bureaus, and divisions of such bureaus, and employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

Applications for letters patent and caveats, as they are received each day from the application division, are inspected, to ascertain to which division they properly belong, and are then recorded in the register by the lady clerk, who places the serial number and book number upon the drawing and papers. The case is then ready for examination; and is taken up in the order of its date of filing, and examined as to novelty, utility, clearness of description and illustration, formality of petition, oath,

signatures, &c., and the inventor or his attorney is informed of the office decision. The case, if rejected, then awaits the inventor's action. If allowed, for grant of patent, the case receives the signature of the examiner in charge, and is sent to the issue division, where it is prepared (on payment of the final fee) for the printer and photolithographer.

When the inventor amends, or requests a reconsideration, the case is again taken up, the amendment or argument considered, and a decision rendered as before.

In case the inventor appeals to the board of examiners-in-chief or to the Commissioner, the examiner prepares a statement (in reply to the "reasons of appeal") to accompany the case.

When two or more pending cases, or pending case, with unexpired patents, have conflicting claims, the examiner forwards to the examiner of interferences notices of interference (together with the files and drawings) for all the parties; and if the issue has been well defined, and the notices are correct, the interference is declared *pro forma* by forwarding the notices to the several parties. After the decision of the examiner of interferences (upon evidence submitted, or upon the record) as to which party is the prior inventor, the cases are returned to the primary examiner, and further action taken in accordance with such decision.

Motions to dissolve an interference are heard and decided by the primary examiner.

Applications for reissue of letters patent are considered by the primary examiner; and are also subject to appeal, interference, correction, or amendment.

Cases renewed after forfeiture for non-payment of the final fee are entered and examined with the new cases.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the eighteenth division of the Patent Office, Department of the Interior:

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received during Jan. and Feb., 1887.	Disposed of during Jan. and Feb., 1887.	Pending Mar. 1, 1887.
Examination of applications for patents.....	216	3, 869	3, 741	344	4, 464	4, 610	198	3, 929	3, 971	156	641	644	153

These figures represent new applications for patents, caveats, cases returned to the office for reconsideration, accompanied either by amendment, argument, correction, or request for reconsideration. Declarations of interference, renewed cases, reissues, and appeals are also included.

NINETEENTH DIVISION.

Report of the nineteenth division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 13, 1887.

Statement showing the principal items of business transacted in the nineteenth division of the Patent Office, Department of the Interior.

The business of this division consists solely in the examination of applications for patents.

Statement showing in detail the methods of transacting business in the nineteenth division of the Patent Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the division, and then showing in consecutive order the various steps taken by each of such principal business matters through the division, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

As in the other examining divisions the applications are each day duly entered in the register. They are then assigned to the assistant having immediate charge of the class or classes of invention to which they belong, and by him examined when reached

in the order prescribed by the rules of practice. Every action by the office, and every amendment by the applicant is recorded, both on the file of the case and in the register, and when the case is passed to issue a similar record is made. After issue the cases are beyond the jurisdiction of the examiner, and subsequent steps are pursued under the direction and management of the issue and gazette division.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the nineteenth division of the Patent Office, Department of the Interior :

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received during 1887.	Disposed of in 1887.	Pending Mar. 1, 1887.
Applications for patents:													
New	284	1,718	1,469	533	1,503	1,699	337	1,695	1,712	320	389	475	234
Amended	123	2,464	2,512	75	3,539	3,554	60	3,320	3,279	101	517	553	65
Caveats	0	107	107	0	103	103	0	88	98	0	45	49	0
Applications sent to issue.....			777			836			769				

The number of issues is included in the number of actions on applications.

The transfer hence of the subclass "driers" on the 19th of August, 1884, and the subclass "lamps and gas-fixtures" on the 21st of February, 1887, to divisions eighteen and fifteen, respectively, will account for the decrease in new applications subsequently received.

The following statement shows the average amount and character of business performed, transacted and disposed of during the periods specified, by the employés in the nineteenth division of the Patent Office, Department of the Interior :

Character of business.	Average amount transacted during each month.											
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.												
Actions on new and old applications, including issues, and on caveats..											72	76
1885.												
Actions on new and old applications, including issues, and on caveats..	128	96	83	105	101	103	94	74	48	115	80	87
1886.												
Actions on new and old applications, including issues, and on caveats..	86	90	80	73	84	121	95	86	55	64	84	61
1887.												
Actions on new and old applications, including issues, and on caveats..	75	72										

Prior to the issuance of order No. 200, dated November 29, 1884, there was no requirement for each division to keep a record of the work performed by the examiners. Hence, no report can be given for said work prior to November, 1884.

The absence of examiners on leave will account, in a great degree, for the wide variation in these averages.

The following statement shows the average number of employés in the nineteenth division of the Patent Office, Department of the Interior, during the periods specified :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	5	5½	6	6	6	6¾	6¼	6¾	7	8¼	9	8½
1885.....	8¼	8½	7½	8	8	8	8	8	8	8	8	8
1886.....	8½	9	8½	8½	9½	8	9½	10½	11	11	11½	11½
1887 (to March 1).....	12¼	11½	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

This report is compiled from the names of examiners, clerks, and messengers which appear upon the time report, whether said employés were actually present or absent on leave.

The following statement shows the maximum and minimum amount of actions by examiners on applications (new and old) and on caveats by the employé doing the most and the employé doing the least during the periods specified, in the nineteenth division of the Patent Office, Department of the Interior :

MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	139	129
1885.....	218	167	206	122	225	227	191	162	150	203	167	181
1886.....	183	193	207	139	190	181	153	104	127	151	138	158
1887 (to Mar. 1).....	166	113	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MINIMUM.

1884.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	46	51
1885.....	91	12	14	32	31	42	46	37	20	49	50	65
1886.....	38	34	0	44	52	91	0	0	0	0	3	35
1887 (to Mar. 1).....	54	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

It often happens that the principal examiner makes fewer actions than any of his assistants for a given month, but no account of the principal's actions is taken in making up the minimum table, because most of his time and attention is occupied in other ways than in examining cases.

Sickness and the short duration of time employés were assigned to this division determine the figures in the minimum tabulation.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the nineteenth division of the Patent Office, Department of the Interior :

Year.	Average No. of employés.	Average No. of days present.	Average No. of hours employed daily.	No. by proxy.
1884.....	6¾	279	7	0
1885.....	8½	277	7	0
1886.....	9¼	265	7	0
1887 (to March 1).....	12	279	7	0

The third column shows the average number of days present of those employés whose names appear on the time report for the year in full.

The average for 1886 is reduced by the illness of an examiner for four months.

The time report fails to show the many hours of night work performed by the employés of this division, which cannot, therefore, be included in this report.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the nineteenth division of the Patent Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to Mar. 1).
Maximum number of days.....	279	277	279	32
Minimum number of days.....	37	47	3	2

Of the employés whose records show them to have been present during the least number of days, the first was not assigned till October 3; the second was assigned March 12, and transferred hence April 31 following; the third was assigned July 23, and transferred hence on the 27 of the same month; the fourth was assigned February 11, and transferred hence on the 14th of the same month.

TWENTIETH DIVISION.

Report of the twentieth division of the Patent Office, on the methods of business and work, as requested by the Senate Select Committee, and called for by Department circular of March 23, 1887.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the twentieth division of the Patent Office, Department of the Interior:

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Examination of applications	188	4,230	4,112	306	4,649	4,741	214	4,651	4,690	175	656	617	214

The above figures indicate totals of old and new cases.

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employés in the twentieth division of the Patent Office, Department of the Interior:

Character of business.	Average amount transacted during each month.											
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.												
Examination of applications.....	79	70 $\frac{1}{5}$	86 $\frac{2}{5}$	69 $\frac{3}{5}$	59 $\frac{1}{2}$	65 $\frac{3}{5}$	61 $\frac{1}{3}$	66 $\frac{3}{4}$	69 $\frac{2}{5}$	81 $\frac{3}{4}$	65 $\frac{3}{5}$	78 $\frac{3}{4}$
1885.												
Examination of applications.....	96 $\frac{1}{2}$	55 $\frac{1}{2}$	102	89 $\frac{2}{5}$	68 $\frac{1}{3}$	67 $\frac{5}{8}$	73 $\frac{1}{3}$	66 $\frac{2}{3}$	65 $\frac{5}{8}$	68	52 $\frac{1}{4}$	61 $\frac{1}{5}$
1886.												
Examination of applications.....	69 $\frac{5}{8}$	60 $\frac{2}{3}$	85 $\frac{1}{3}$	86 $\frac{4}{5}$	80 $\frac{1}{3}$	90 $\frac{1}{5}$	79 $\frac{2}{5}$	82 $\frac{3}{4}$	70 $\frac{1}{5}$	78 $\frac{2}{3}$	50 $\frac{2}{5}$	65
1887.												
Examination of applications.....	51 $\frac{2}{3}$	55 $\frac{1}{2}$	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The above statement includes examiners only.

The comparatively small amount of work reported since November, 1886, is caused by the fact that since the above date two assistants have been assigned to this division, who are inexperienced in the work of examination.

The following statement shows the average number of employés in the twentieth division of the Patent Office, Department of the Interior, during the periods specified:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	6	6	6	6	5½	6	5½	5	6	5½	6½	6½
1885.....	6	6	5½	5	6	6	6½	6½	6½	5½	5½	6
1886.....	5½	5½	6	5	5	5	5½	5	5	5½	5½	6
1887 (to March 1)	7	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The above statement includes examiners, clerks, copyists, &c.

The following statement shows the maximum and minimum amount of examinations of applications transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified, in the twentieth division of the Patent Office, Department of the Interior :

MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1885.....	64	29	50	30	25	25	14	27	35	21	14	31
	75	52	61	84	60	53	60	49	49	50	39	49
	139	81	111	114	85	78	74	76	84	71	53	80
1886.....	49	30	64	32	25	31	31	19	33	22	15	23
	58	67	79	82	74	62	69	70	53	69	58	50
	107	97	134	114	99	93	100	89	86	91	73	73
1887 (to March 1)	18	47	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	39	38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	57	85	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MINIMUM.

1885.....	30	9	15	23	32	26	16	16	23	26	6	10
	35	30	26	47	11	29	28	32	34	30	40	23
	65	39	41	70	43	55	44	48	57	56	46	33
1886.....	14	14	10	19	17	27	20	18	21	20	22	23
	29	19	31	41	41	41	36	48	37	32	26	14
	43	33	41	60	58	68	56	66	58	52	48	37
1887 (to March 1)	15	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	31	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	46	39	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

No record of work kept for 1884.

The above statement includes examiners only.

The first line of figures opposite each year in the above statement indicates new cases, the second line old cases, and the third line total cases.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the twentieth division of the Patent Office, Department of the Interior :

Year.	No. of employés.	Average number of days present.	Average number of hours employed daily.	Number by proxy.
1884.....	7	260¼	6½	0
1885.....	7	275¾	6½	0
1886.....	7	274¾	6½	0
1887 (to March 1)	7	43	6½	0

The above statement includes examiners, clerks, copyists, &c.

Of the number of employés for 1884, 1885, and 1886, two were on clerical and other work; and of the number for 1887, six were on examining duty, and two on other work.

The following statement shows the amount of business transacted and disposed of by the employé doing the most and the employé doing the least during each month of the years named:

MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....												41
1885.....	43	50	90	82	84	83	118	58	72	92	83	130
1886.....	105	63	152	172	124	125	104	93	70	103	85	75
1887 (to March 1).....	85	50										

MINIMUM.

1884.....												15
1885.....	25	9	26	21	11	14	13	9	8	7	29	14
1886.....	17	38	87	81	54	78	34	36	22	24	34	28
1887 (to March 1).....	22	18										

The above tables refer merely to actions made by persons employed in examining. No record of work performed by individuals was required to be kept by the office rules and orders prior to December, 1884.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business, also the number of days devoted to business by the employés present for the greatest number of days and employé present for the least number of days during the following years:

Year.	Average number of days.	Hours daily.	In person or by proxy.	Maximum number of days.	Minimum number of days.
1884.....		7	In person.....		
1885.....	273	7	do.....	*284	*270
1886.....	284	7	do.....	†301	†266
1887 (to March 1).....	43	7	do.....	†48	†36

* Five persons continuously.

† Only 3 persons continuously in the division for either year.

In the above table the 7 hours daily is merely the legal requirement. From one-half to two hours daily have been given by each employé in addition to the number noted.

Statement showing the principal items of business transacted in the twenty-first (textiles) division of the United States Patent Office.

The work performed in this division consists chiefly of the examination of applications for letters patent on inventions that pertain to any of the following classes:

13. Brakes and gins.
19. Carding.
26. Cloth-finishing.
28. Cordage.
66. Knitting and netting.
117. Silk.
118. Spinning.
139. Weaving.

TWENTY-SECOND DIVISION.

Report of the twenty-second division United States Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

The following statement shows in detail the business in the twenty-second division of the office of patents, for the years 1884, 1885, 1886, and 1887 (to March 1):

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	414	437	398	501	489	446	410	403	505	405	348	444
1885.....	459	427	423	441	456	423	449	318	310	395	447	456
1886.....	513	468	431	448	417	423	469	476	384	432	467	474
1887 (to March 1)	479	384	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The above table represents the number of actions upon applications for patents.

The following statement shows the average number of employés during each month of the years named:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	7	7	7	7	7	7	7	8	8	8	8	8
1885.....	8	8	8	7	7	7	7	7	7	7	8	8
1886.....	8	8	8	7	7	7	7	7	7	8	8	8
1887 (to March 1)	8	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the amount of business transacted and disposed of by the employé doing the most and the employé doing the least during each month of the years named:

MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1885.....	102	110	132	119	111	107	124	102	89	111	98	102
1886.....	112	106	105	110	111	135	114	135	161	130	110	123
1887 (to March 1)	137	120	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MINIMUM.

1885.....	68	64	72	91	96	89	82	19	42	68	57	73
1886.....	82	73	66	67	64	64	54	19	40	58	49	59
1887 (to March 1)	95	67	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The report of work by individual examiners was not recorded for the year 1884.

The above tables represent the number of actions upon applications for patents made by the examiner performing the maximum and minimum amount of work.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business, also the number of days devoted to business by the employé present for the greatest number of days and employé present for the least number of days during the years named:

Year.	Average No. of days.	Hours daily.	In person or by proxy.	Maximum No. of days.	Minimum No. of days.
1884.....	282	8	In person...	298	12
1885.....	294	8	....do.....	293	9
1886.....	283	8	....do.....	290	13
1887 (to March 1)	34	8	....do.....	51	11

Statement showing the principal items of business transacted in the twenty-second division of the Patent Office.

- (1) Inspection of caveats.
- (2) Inspection of applications when first filed with the examiner to determine if the same be properly assigned.
- (3) Examination of applications as to proper form and as to state of the art.
- (4) Re-examination of applications when amended or corrected.
- (5) Answers to appeals to the board of examiners-in-chief or to the Commissioner of Patents.
- (6) Declaration of interference between pending cases or between pending cases and patents, &c.
- (7) Hearing motions to dissolve interferences and determining the question of dissolution.
- (8) Reports on extension of patents.
- (9) Miscellaneous duties, such as reclassification of applications, as to line of invention, reports to the Commissioner in particular cases, service in special committees, &c.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of, at the dates specified below, in the division of fire-arms, ordnance, marine propulsion, ship-building (division twenty-two), Patent Office :

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received during 1887.	Disposed of during 1887.	Pending Mar. 1, 1887.
Number of applications.....	134	1, 848	5, 404	117	1, 666	5, 005	117	1, 902	5, 381	89	273	863	86
Number of actions upon applications.....	...	.....	5, 404	..	.....	5, 005	.....	.....	5, 381	..	.....	863	.....

Statement of the twenty-second division of the Patent Office, showing the methods adopted in transacting the principal business matters, beginning with the receipt of the matter by the Department or by any of the agents of the Department, and giving in consecutive order the various steps taken by each of such business matters through the various divisions of the office and the various Bureaus and divisions of such Bureaus, and employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each until the same is finally disposed of and notice thereof duly given to the proper party.

When an application has been filed in the application room, complete in all respects, including petition, specification, oath, and drawings, and has been assigned to the primary examiner, his first duty is to inspect the same to determine if it has been properly assigned to his division, and, if not, to return the same to the application room for further designation. If it has been properly assigned, the file wrapper and drawing are stamped with the title of the sub-class to which the invention pertains, and the application is placed in a suitable receptacle, in the order of its serial number and date of filing.

Each application is taken up for examination in its order of filing; the oath is inspected to determine if it complies with the requirements of law and the rules of the office; the description is carefully criticised to discover if it is in proper form, free from inaccuracies and unnecessary verbiage; and the claims are then examined as to form, and in view of the state of the art, as shown and described in native and foreign patents and in printed publications.

The examination having been thorough in all particulars, applicant (or his attorney, if he has one) is advised of the result of such examination—all objections, formal or otherwise, being embodied in the first official letter.

As often as the application is amended it is re-examined, and is either passed to issue—all requirements of the office having been complied with—or applicant is given the opportunity to appeal to the board of examiners-in-chief or to the Commissioner, as the circumstances may demand.

On such appeal having been made in writing, the examiner is required to answer the same, also in writing, upon the points of difference raised by the applicant.

When pending applications, the subjects-matter of which are decided to be patentable, are found to conflict with pending applications, or with unexpired patents, the examiner declares a preliminary interference between the respective cases, and the whole subject is then referred to the examiner of interferences.

It often happens that motions are made by the parties interested to dissolve such interferences on various grounds, and when this is the case all the papers are referred back to the primary examiner to hear the arguments of the applicants or their attorneys, and to determine the question of dissolution, and to report his decision in writing. Any appeal from such decision he is also required to answer in writing.

These duties, and others, such as reports to the Commissioner in individual cases, hearing his assistant's cases, reports as to extensions of patents, applications for reissues of patents, reclassification of inventions, service on special committees, &c., come within the province of the primary examiner, and for the faithful execution of which duties he is held responsible to the Commissioner.

The above résumé of the duties of an examiner's division is all that can be given in this report, an enumeration of the details of the various subjects requiring his attention and action necessitating a more extended space than is here permitted.

TWENTY-THIRD DIVISION.

Report of the twenty-third examining division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee and called for by Department circular of March 13, 1887.

Statement showing the principal items of business transacted in the twenty-third examining division of the United States Patent Office, Department of the Interior.

(1) Examination of applications for patent in the following classes of invention: Aconstics; drafting; educational appliances; horology; measuring instruments; optics.

(2) Examination of applications for registration of trade-marks under the act of March 3, 1881, and prints and labels under that of June 18, 1874.

From the distinct character of these two branches of work, no just comparison can be made between them. In the appended reports, forms D, E, F, G, H, and I, separate schedules are therefore given. The personal time of the principal examiner is necessarily given to both.

Statement showing in detail the methods of transacting business in the twenty-third examining division of the United States Patent Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

Files for applications of all kinds are made up in the application division, and are not sent to the examiner until they appear to be in proper order.

In division twenty-three, separate books are kept for applications for patent and for applications for registration of trade-marks and labels, under the acts of March, 1881, and June, 1874. These two branches of work are kept as separate as if they belonged to distinct divisions.

Applications as received are recorded in the appropriate register, with full data: Name of applicant, his attorney, title of invention (or whatever may correspond thereto), date of filing, date of receipt in room, &c., and then, under direction of the principal examiner, assigned to the assistants who are to examine them. The date of filing determines the order in which they are to be taken up for examination, but amended cases have precedence. Allowance is indicated by the principal examiner's signature on the face of the file, and its transmittal to the issue division, when the examiner's jurisdiction over it ceases.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending and undisposed of, at the dates specified below, in the twenty-third examining division of the United States Patent Office, Department of the Interior :

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received during 1887.	Disposed of in 1887.	Pending Mar. 1, 1887.
Applications for patent	99	3,063	2,904	258	3,521	3,593	186	3,556	3,518	234	661	672	223

“New” and “old” cases are consolidated in this report. “New” being those which have never before received action ; “old” those which after one or more actions are again called up by amendment, argument, or appeal. No account is taken of cases not awaiting office action. The numbers of these can only be ascertained by actual count at any date.

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employés in the twenty-third division of the United States Patent Office, Department of the Interior :

Character of business.	Average amount transacted during each month.												
	Jan.	Feb.	Mar.	Apr.	May	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1884.													
Examination of applications for patent	93	76	93	93	86	87	81	72	94	76	87	75	
1885.													
Examination of applications for patent	99	86	146	141	96	108	97	100	89	87	86	105	
1886.													
Examination of applications for patent	90	102	129	112	69	94	105	76	125	108	92	89	
1887.													
Examination of applications for patent	85	82	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the average number of employés in the twenty-third division of the United States Patent Office, Department of the Interior, during the periods specified :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	3	3	3	3	3	3	3	2½	2	3	2½	3
1885.....	3	3	3	3	3	3	3	2½	2½	3	3	3
1886.....	3	3	3	3	3	3	3	3	2	2	3	4
1887 (to March 1)	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The above figures indicate assistants on mechanical cases, and are approximate only.

The following statement shows the maximum and minimum amount of business transacted and disposed of by the employé doing the most, and the employé doing the least during the periods specified, in the twenty-third division of the United States Patent Office, Department of the Interior :

MAXIMUM.

Character of business.	Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Examining applications for patent.....	1884												113
Do	1885	121	115	168	184	151	171	118	106	110	102	105	115
Do	1886	108	110	151	147	76	127	153	101	99	140	108	128
Do	*1887	114	102										

MINIMUM.

Examining applications for patent.....	1884												36
Do	1885	66	48	94	89	50	68	68	49	31	54	52	77
Do	1886	63	71	92	62	51	55	58	88	81	79	23	36
Do	*1887	43	43										

* To March 1.

No permanent records kept prior to December, 1884, from which these data can be obtained.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the assistant examiners employed on applications for patent in the twenty-third division of the United States Patent Office, Department of the Interior :

Year.	No. of employés.	Average No. of days present.	Average No. of hours employed daily.	No. by proxy.
1884.....	3	289	7	0
1885.....	3	284	7	0
1886.....	3	286	7	0
1887 (to March 1)	4	50	7	0

The above table is made up on a basis of 313 days in a year.

The following statement shows the maximum number of days devoted to examining applications for patents by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the twenty-third division of the United States Patent Office, Department of the Interior, during the period specified :

	1884.	1885.	1886.	1887 (to March 1).
Maximum number of days.....	293	291	287	50
Minimum number of days.....	286	283	285	50

This report is based on an estimate of 313 working days in the year. It includes only the time of assistant examiners. The principal examiner, whose business it has been to supervise and direct the work of all assistants, was present in 1884, 301 days; in 1885, 306 days; in 1886, 311 days; and up to the close of February, 1887, 50 days.

The minimum amount of business transacted by this division is the same as the maximum, as only one person is employed on this work.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business, during the periods specified, by the assistant examiner at the trade-mark desk in the twenty-third division of the United States Patent Office, Department of the Interior:

Year.	No. of employés.	Average No. of days present.	Average No. of hours employed daily.	No. by proxy.
1884.....	1	256	7	0
1885.....	1	275	7	0
1886.....	1	232	7	0
1887 (to March 1).....	1	25	7	0

The above report is made up on a basis of 313 working days in a year.

The following statement shows the maximum number of days devoted to examining trade-mark and label applications by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the twenty-third division of the United States Patent Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to Mar. 1).
Maximum number of days.....	256	275	232	25
Minimum number of days.....	256	275	232	25

Only one person employed in this distinctive work. The principal examiner has been present for the same periods, respectively, 301, 306, 311, and 50 days, constantly supervising the work, and in the absence of his assistant taking personal charge of the desk.

TWENTY-FOURTH DIVISION.

Report of the twenty-fourth division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee and called for by Department circular of March 13, 1887.

Statement showing the principal items of business transacted in the twenty-fourth division of the Patent Office.

1. Examination of applicants for patent in the following classes of invention, to wit:

- Class 2.—Apparel.
- Class 29.—Crinoline and corsets.
- Class 112.—Sewing machines.
- Class 165.—Designs.

Statement of the twenty-fourth division of the Patent Office, showing the methods adopted in transacting the principal business matters, beginning with the receipt of the matter by the Department or by any of the agents of the Department, and giving in consecutive order the various steps taken by each of such business matters through the various divisions of the office and the various Bureaus and divisions of such Bureaus, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof given to the proper party.

On receipt of the applications from the application division the examiner inspects the same, ascertaining by such inspection if the same fall properly within the classes over which he has jurisdiction. If he finds any which do not fall within such

The following statement shows the maximum and minimum examinations of applications for patents disposed of by the employé doing the most and the employé doing the least during the periods specified, in the twenty-fourth division of the United States Patent Office, Department of the Interior :

MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1885.....	116	113	109	129	130	134	118	123	98	101	89	109
1886.....	129	73	110	100	84	144	124	65	82	112	106	112
1887 (to March 1)	151	121	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MINIMUM.

1885.....	27	44	23	21	42	51	30	3	12	51	43	43
1886.....	51	49	57	68	58	9	5	43	35	24	30	16
1887 (to March 1)	28	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

A record of individual work done was not kept prior to the month of January, 1855. Since and including that month a count of cases disposed of by the individuals in the examining corps has been kept. Inasmuch, however, as the character of the cases differs in greater proportions than differences in the character of the individuals doing the work, such record indicates simply the number of cases disposed of, irrespective of their character. The clerical employés of the division are without other record than their reputation for efficiency.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the twenty-fourth division of the United States Patent Office, Department of the Interior :

Year.	Number of employés.	Average number of days present.	Average number of hours employed daily.	Number by proxy.
1884.....	7	276.3	7	0
1885.....	9	269.6	7	0
1886.....	9	270.6	7	0
1887 (to March 1)	10	46.6	7	0

The above table is based upon the fact that in the year 1884 there were only 307 working days, by reason of the fact that owing to the 52 Sundays, the 6 legal and 1 special holiday of that year, there were 59 days on which no record of work done was kept. For the same reason in the year 1885 there were only 301.5 working days, and in the year 1886 only 305 working days, while up to March 1, 1887, there were 48 working days.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the twenty-fourth examining division of the United States Patent Office, Department of the Interior, during the periods specified :

	1884.	1885.	1886.	1887 (to Mar. 1).
Maximum number of days.....	283	276.5	293	48
Minimum number of days.....	258	252.5	256	48

The above table is based upon a list of those employés of the division only whose entire duties for the respective year were transacted in the division, omitting all those whose services in the division comprised only a fractional part of the year. The actual working days of the respective years taken as a basis are those indicated in the remarks appended to table immediately preceding.

TWENTY-FIFTH DIVISION.

Report of the twenty-fifth division, United States Patent Office, on the methods of business and work, as requested by the Senate Select Committee, and called for by Department circular of March 23, 1887.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the division twenty-five in the Office of Commissioner of Patents:

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Whole number of applications pending not now ascertainable, probably on hand, new and old	1, 100			1, 100			1, 100			1, 120			
Whole number of actions			2, 616			2, 908			2, 600			367	
Number of appeals, about			20			27			9				
Number of interferences			21			35			31				
Number of applications		912			826			841			240		
Number of caveats		79			93			84			9		
Number of applications, new and old, disposed of (<i>i. e.</i> , acted upon, allowed, or abandoned), about			839			950			726			95	

The following statement shows in detail the number of actions on applications in the fourteenth examining division of the office of the Commissioner of Patents for the years named:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	40	40	58	52	62	75	57	50	68	67	78	84
1885.....	203	203	234	229	248	250	178	161	214	201	235	252
1886.....	75	57	53	69	66	53	53	45	47	46	55	55
1887 (to March 1)	302	230	269	275	266	267	266	226	236	225	220	220
	39	43	39	40	40	40	44	23	35	27	35	39
	239	216	234	238	238	262	255	164	209	194	209	297
	46	26										
	232	157										

The first line of figures opposite each year in the above table indicates the averages of individuals, examiners, or assistants; the second line, the totals.

The following statement shows the average number of employés, including clerks, during each month of the years named:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	7½	7	6	6	6	5½	5	5	5	5	5	5
1885.....	6	6	7	6	6	7	7	7	7	7	6	6
1886.....	6	7	8	7½	7	8	8	9	8	9	8	8
1887 (to March 1)	7	8										

No allowance made herein for leaves of absence, which would be about equal for all—thirty days each.

The following statement shows the amount of actions on applications transacted and disposed of by the employé doing the most and the employé doing the least during each month of the years named :

MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	68	53	67	71	100	124	94	57	106	76	102	121
1885.....	132	130	140	157	130	125	106	77	97	148	125	103
1886.....	101	102	117	112	111	106	112	98	81	68	75	71
1887 (to March 1).....	71	39	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MINIMUM.

1884.....	6	31	29	14	24	4	31	23	12	23	30	20
1885.....	34	44	45	7	19	12	8	7	15	7	8	6
1886.....	16	14	11	10	12	14	1	5	10	6	10	15
1887.....	17	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business; also the number of days devoted to business by the employé present for the greatest number of days and employé present for the least number of days during the years named :

Year.	Average No. of days.	Hours daily.	Maximum No. of days.	Minimum No. of days.
1884.....	253	7	280	226
1885.....	270	7	278	263
1886.....	272	7	278	264
1887 (to March 1).....	47	8	48	46

In the above statement the second and third columns indicate the average between the days of the one most absent and the one least absent. At least one hour per diem for one person should be added for extra work for the whole period.

Statement of the twenty-fifth examining division of the Patent Office, showing the methods adopted in transacting the principal business matters, beginning with the receipt of the matter by the Department or by any of the agents of the Department, and giving, in consecutive order, the various steps taken by each of such business matters, through the various divisions of the office and the various Bureaus and divisions of such Bureaus, and employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

(1) Fee and essential parts of complete application or caveat received by financial clerk and "applications" room.

(2) Completed case sent forward to examiner, with date of completion marked on the face of the file. Case entered on examiner's record and placed on the docket for examination in the order to which its filing, date, or other circumstances entitle it under the rules.

(3) When reached case is carefully read by assistant; examined as to all matters of form; notes made of all defects and objections. The search is then made to ascertain whether the invention claimed is anticipated by earlier inventions of which the office possesses records or knowledge, and in what particulars it is so anticipated. Assistant then submits the case to the examiner, and a letter is prepared embodying the results of the examination.

(4) The letter is copied, the copy mailed, the original retained in the file-record, the action recorded on the books, and the papers put away to await the response of the applicant to the letter.

(5) When applicant responds by amendment or letter the communication is incorporated with the record by the clerk, further considered by the assistant, taking precedence over new cases, and (in cases of doubt or difficulty by the examiner) a second letter prepared, or if all objections have been removed the case is prepared for allowance. If the objections are not removed the applicant, after one repetition of the examiner's action in matters of form, may petition the Commissioner to reverse the examiner's action; or, after two refusals on the same grounds to grant a patent, may appeal to the examiners-in-chief to reverse the action of the primary examiner.

(6) In case of either petition or appeal, the examiner prepares a statement in writing of the grounds of his final action in the case. If his action is overruled or reversed, the case is proceeded with as if the objections overruled had not been urged. If affirmed, the examiner enforces compliance with requirements.

(7) When all objections have been removed, in whatsoever way, the examiner causes the files to be searched to ascertain if any pending application or caveats conflict with the case, and if so, notifies the caveator, or prepares letters notifying both applicants or their attorneys of the nature and extent of the interference, and sends the cases forward to the examiner of interferences, who ascertains if the issue has been clearly defined, and notes upon the letters the date before which the preliminary statements of both applicants must be filed. From this time, until the termination of the interference, the case is in the hands of the examiner of interferences or of his subordinates, except in case of suspension, motion to dissolve, or other special reason for which the cases are returned to the primary examiner for his determination of questions falling within his province.

(8) Upon the allowance of an application, the case is prepared for issue, the allowance recorded, and the papers sent forward to the issue division, by which the applicant is informed of the allowance of his case and the date of allowance, and notified to pay the final fee within the following six months. If he does so within the required time the specification is printed, the drawing reproduced by photolithography, the patent prepared and mailed to him, and the issuance thereof, with a brief explanation of the invention, announced in the Official Gazette of the date of issue of the patent.

(9) If applicant fails to pay the fee within the six months and the patent is forfeited, under R. S., 4885, the papers are so marked, and returned to the examiner until such time as the application becomes abandoned by failure to further prosecute (R. S., 4894), or is renewed under R. S., 4897. The files and drawings of all abandoned cases and expired caveats are in the care of the chief draughtsman.

(10) The caveats upon reception in the examiner's room are examined to ascertain if the papers are in proper form, and an intelligible disclosure made of the invention, and referred to from time to time to prevent the inadvertent issue of an interfering application subsequently filed.

Statement showing the principal items of business transacted in the twenty-fifth examining division of the Patent Office.

DUTIES OF EXAMINER.

- (1) Preliminary examination and distribution of cases and papers filed therein.
- (2) Hearing and deciding upon cases examined and reported for his action by assistants.
- (3) Classifying patents and publications.
- (4) Attending to oral arguments and interviews with applicants and attorneys concerning cases pending before him.
- (5) Determining as to the *fact* of interference between conflicting applications; declaring such interference; deciding motions to dissolve such interference.
- (6) Answering appeals.
- (7) Reviewing and signing cases prepared for allowance.
- (8) Examining cases personally as time permits.
- (9) General supervision of the work of the division.

DUTIES OF ASSISTANTS.

- (1) Examining cases as to form and noting all objections thereto.
- (2) Making searches in the classified patents and other publications as to the novelty of the invention.
- (3) Preparing the letter or the materials therefor announcing the results of the examination.
- (4) Reporting the same to the principal examiner.
- (5) In the case of the first assistant, performing the duties of the principal examiner during his absence.

DUTIES OF THE CLERK.

- (1) Recording applications and caveats received, and the actions made therein.
- (2) Copying and recording letters from the examiner to the applicant and preparing them for the mail.
- (3) Recording and entering amendments and letters from applicants.
- (4) Arranging and distributing files and drawings of applications; getting them out when needed and restoring them; stamping files and drawings; making lists of patents, &c.
- (6) Making out the daily, weekly, and monthly reports of the work performed and on hand, and of the attendance of the employés of the division.

TWENTY-SIXTH DIVISION.

Report of the twenty-sixth (electricity, B) division, United States Patent Office, on the methods of business and work, as requested by Senate select Committee, and called for by Department circular of March 13, 1887.

Statement showing the principal items of business transacted in the twenty-sixth division of the Patent Office, Department of the Interior.

Examination of applications for patent in the following classes of invention :

Electricity :

Generation.

Motive power.

Conductors.

Medical and surgical.

Special applications.

Statement showing in detail the methods of transacting business in the twenty-sixth division of the Patent Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the office, and then showing, in consecutive order, the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

Applications as received from the application division are assigned by the principal examiner to the assistants, to whom they are delivered, after having been recorded in a register kept for that purpose; each assistant having charge of particular subclasses.

Cases are taken up for examination in the order of their dates of filing, except under the provisions of Rule 62.

Examination is made by the assistants, who report to the principal examiner the nature of the cases and the results of their searches before any action is made.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the twenty-sixth division of the Patent Office, Department of the Interior :

Character of business.	Pending Aug. 1, 1886.	Received from Aug. 1, 1886.	Disposed of from Aug. 1, 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending on Mar 1, 1887.
Examination of applications for patent.....	152	1, 138	996	294	527	534	287

The figures in the above table embody both "new" and "old" cases; "new" signifying those cases which have *never* received action at hands of the examiner, and "old" being those which *have* received such action.

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employés in the twenty-sixth division of the Patent Office, Department of the Interior :

Character of business.	Average amount transacted during each month.											
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1886.												
Examining applications for patent.....								57	38	38	43	39
1887.												
Examining applications for patent	49	58										

The following statement shows the average number of employés in the twenty-sixth division of the Patent Office, Department of the Interior, during the periods specified :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1886.....								3.6	4.5	3.9	4.1	4.7
1887 (to March 1).....	4.7	4.9										

The above figures indicate principal and assistant examiners ; no account of clerical work taken.

The following statement shows the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified, in the twenty-sixth division of the Patent Office, Department of the Interior :

MAXIMUM.

Character of business.	Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Examination of applications for patents.....	1886								78	66	65	58	73
Do	1887	66	88										

MINIMUM.

Examination of applications for patents.	1886								11	22	24	24	18
Do	1887	31	37										

Division XXVI (Electricity, B,) was formed by subdividing the original division of electricity (Division XVI) July 20, 1886.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the twenty-sixth division of the Patent Office, Department of the Interior :

Year.	Number of employés.	Average number of days present.*	Average number of hours employed daily.
1886	5	108 $\frac{3}{8}$	7
1887 (to March 1).....	5	49 $\frac{3}{8}$	7

* From August 1, 1886.

The clerical force is not included in the above statement.

The following statement shows the maximum number of days devoted to examination of applications for patents by the employé present for the greatest number of days, and also the minimum number of days by the employé present for the least number of days, in the twenty-sixth division of the Patent Office, Department of the Interior, during the periods specified :

	1886 (from Aug. 1).	1887 (to March 1).
Maximum number of days	119.5	58
Minimum number of days	98	42.5

No account of clerical work is taken in above estimate.

TWENTY-SEVENTH DIVISION.

Report of the twenty-seventh division, Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the twenty-seventh division of the Patent Office, Department of the Interior

(1) The organization of the division from classes of inventions transferred from divisions 2, 8, 13, 15, and 24, which organization involved the preparation of complete records for the division, and the reception, verification, and arrangement of the applications received by transfer.

(2) From August, 1884, to May, 1885, the classification, examination of, and action upon, all applications for letters patent for inventions, and all caveats for inventions in the classes of:

- (15) Brushing and scrubbing.
- (43) Fishing and trapping.
- (46) Games and toys.
- (51) Grinding and polishing.
- (68) Laundry.
- (141) Washing apparatus.

From May 1, 1885, to March 1, 1887, the classification, examination of, and action upon, all applications for patents, and all caveats in each of the above-named classes, except fishing and trapping and games and toys.

(3) The clerical work required in preparing the new records of the division, such as examiner's registers, the making of lists of the patents in the classes and subclasses constituting the division; obtaining, classifying, and arranging copies of the patents in such classes and subclasses; the reception, classification, and entry of all applications and caveats received; the reception and entry of all amendments in old applications; preparing and mailing copies of all official letters written in the division; recording all actions made by the division; and preparing all required reports relative to the condition of the work in the division.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending and undisposed of, at the dates specified below in the twenty-seventh division of the Patent Office, Department of the Interior :

Character of business.	Received during 1884 (Aug. 19 to Dec. 31).	Disposed of in 1884 (Aug. 19 to Dec. 31).	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received during 1887 (to Mar. 1).	Disposed of in 1887 (to Mar. 1).	Pending Mar. 1, 1887.
Examination of applications for patents :												
New	1,000	218	782	1,273	*1,761	294	906	1,041	159	171	205	125
Old	514	412	102	2,163	*2,126	139	1,977	2,080	36	472	357	151
Caveats	45	45	.....	73	73	.....	46	46	.....	7	7	.....
Issues .....	.....	100	.....	.....	663	.....	.....	612	.....	.....	81	.....

*Three hundred and ninety-six new applications and 16 amended applications were transferred to other divisions in the month of April, 1885.

This division was established by Order No. 157, dated August 11, 1884. Its organization commenced August 19, 1884, on which date the first of the transferred classes of inventions constituting the division was received.

The clerical work for 1884 consisted of preparing and mailing copies of 530 office letters, entering 1,045 new applications and caveats, entering 514 amendments received in old applications, recording 675 actions made. Also making lists of patents in the different classes and subclasses in the division, and obtaining, classifying, and arranging copies of patents in the different classes and subclasses for the records of the division.

The clerical work for 1885 consisted of preparing and mailing copies of 2,812 office letters, entering 1,346 new applications and caveats, entering 2,163 amendments received in old applications, recording 3,960 actions made. Also making lists of patents in the different classes and subclasses in the division, and obtaining, classifying, and arranging copies of patents in the different classes and subclasses for the records of the division.

The clerical work for 1886 consisted of preparing and mailing copies of 2,509 office letters, entering 952 new applications and caveats, entering 1,977 amendments received in old applications, recording 3,167 actions made. Also making lists of patents in the different classes and subclasses in the division, and obtaining, classifying, and arranging copies of patents in the different classes and subclasses for the records of the division.

The clerical work for 1887 consisted of preparing and mailing copies of 477 office letters, entering 178 new applications and caveats, entering 472 amendments received in old applications, recording 569 actions made. Also making lists of patents in the different classes and subclasses in the division, and obtaining, classifying, and arranging copies of patents in the different classes and subclasses for the records of the division.

The following statement shows the amount and character of business performed, transacted, and disposed of during the periods specified, by the employés in the twenty-seventh division of the Patent Office, Department of the Interior:

Character of business.	Average amount transacted during each month.											
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884. *												
Examination of applica- for patents:												
New.....								5	39	26	69	79
Old.....								5	75	94	94	144
Caveats.....								12	4	11	6	12
Issues.....								1	20	14	28	37
<i>Clerical work.</i>												
Office letters copied and mailed.....								9	94	106	135	186
New applications and ca- veats entered.....								537	128	143	105	132
Amendments entered in old applications.....								105	122	74	77	136
Office actions recorded.....								22	118	131	169	235
1885.												
Examination of applica- tions for patents:												
New.....	93	78	232	†577	90	109	78	202	126	38	47	91
Old.....	120	164	219	213	155	107	180	290	262	186	94	136
Caveats.....	12	18	11	7	4	3	4	.....	6	5	2	1
Issues.....	27	49	58	57	42	24	46	117	127	53	19	44
<i>Clerical work.</i>												
Office letters copied and mailed.....	186	193	393	321	203	192	212	375	261	171	122	183
New applications and caveats entered.....	159	194	248	156	84	93	74	39	65	77	83	74
Amendments entered in old applications.....	138	128	220	229	170	131	147	287	335	154	109	115
Office actions recorded.....	225	260	462	797	249	219	262	492	394	229	143	228
1886.												
Examination of applica- tions for patents:												
New.....	121	120	90	164	89	60	74	54	23	35	97	114
Old.....	182	188	218	126	167	161	140	243	204	144	155	152
Caveats.....	5	4	5	6	2	6	3	4	2	1	5	3
Issues.....	54	66	62	42	30	60	40	64	91	37	31	35

* Division organized in August, 1884.

† Of the cases acted on in April, 1885, 396 new and 16 old were transferred to other divisions.

Character of business.	Average amount transacted during each month.											
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
<i>Clerical work.</i>												
Office letters copied and mailed.....	249	242	246	248	226	161	174	233	136	142	221	231
New applications and caveats entered.....	77	90	106	87	77	91	79	64	71	56	78	73
Amendments entered in old applications.....	160	194	240	172	177	196	118	178	147	124	123	148
Office actions recorded...	308	312	313	296	258	227	217	301	229	180	257	269
1887.												
Examination of applications for patents:												
New.....	137	71										
Old.....	152	205										
Caveats.....	3	4										
Issues.....	39	42										
<i>Clerical work.</i>												
Office letters copied and mailed.....	247	230										
New applications and caveats entered.....	93	85										
Amendments entered in old applications.....	281	191										
Office actions recorded...	289	280										

The following statement shows the number of employes in the twenty-seventh division of the Patent Office, Department of the Interior, during the periods specified:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884 (from August 19)...								{ 6 1	5 2	5 1	4½ 1	5 2
1885.....	{ 4 2	4 2	5½ 2	7 3	5½ 2	5½ 2	5 2	5 2	5 2	5½ 2	4½ 2	5½ 2
1886.....	{ 6 2	5¼ 2	6 3	5¼ 3	5½ 2	5 2	4¾ 2	4½ 2	3 2	4½ 2	4½ 2	4¾ 2
1887 (to March 1).....	{ 6 2	6 2										

The division was organized in August, 1884. The number of employes given in the above table is the number actually employed during the periods specified. The figures in the upper line opposite each year indicate examiners; in the lower line, clerks.

The following statement shows the maximum and minimum amount of business transacted and disposed of by the employe doing the most and the employe doing the least during the periods specified, in the twenty-seventh division of the Patent Office, Department of the Interior:

MAXIMUM.

Character of business.	Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Examining applications for patents.	*1884												†95
Do.....	1885	91	93	131	156	67	60	85	217	157	71	51	70
Do.....	1886	91	97	121	79	112	92	73	115	103	84	134	115
Do.....	‡1887	75	110										

MINIMUM.

Examining applications for patents.	*1884												†10
Do.....	1885	20	13	5	7	4	5	10	10	3	3	5	13
Do.....	1886	6	8	8	2	5	5	4	13	3	4	21	2
Do.....	‡1887	3	20										

* From August 19. † No reports were required until the month of December, 1884. ‡ To March 1.

The work of the clerical force is not included in the above statement.

The above statement shows the maximum and minimum number of actions made by the employé making the greatest and the one making the least number of actions in this division, but it is of no value as a statement showing the amount of work done by each, as the difference in the character of the applications examined correspondingly varies the amount of work required in making the examination.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the twenty-seventh division of the Patent Office, Department of the Interior :

Year.	Number of employés.	Average number of days present.	Average number of hours employed daily.	Number by proxy.
1884 (from August 19)	6	86.9	7	0
	2	83.5	7	0
1885.....	6	263	7	0
	2	267	7	0
1886.....	6	268	7	0
	2	235	7	0
1887 (to March 1)	6	47.3	7	0
	2	47	7	0

The figures in the upper line opposite each year in the above table indicate employés in the examining force; those in the lower line employés on clerical work.

The above statement is based upon the numbers of days on which the employés were actually on duty in this division.

It does not include days on which the Department was closed by Executive order, leaves of absence, absence on account of sickness, or time in which employés were on duty in other divisions. Nor is the additional time outside of regular office hours included.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days and also the minimum number of days devoted to business by the employé present for the least number of days in the twenty-seventh division of the Patent Office, Department of the Interior, during the periods specified :

	1884 (from Aug. 19)).	1885.	1886.	1887 (to Mar. 1).
Maximum number of days.....	108	282	284	48
	88	275	267	48
Minimum number of days	55	241	274	44
	53	260	202	46

The figures in the upper line opposite each year in the above table indicate examining applications for patents; those in the lower line clerical work.

TWENTY-EIGHTH DIVISION.

Report of the twenty-eighth division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee and called for by Department circular of March 13, 1887.

Statement showing the principal items of business transacted in the twenty-eighth division of the United States Patent Office, Department of the Interior.

The examination of and action upon applications for letters patent for invention in the following classes :

- (34) Driers;
- (168) Farriery;
- (81) Metal-working tools;
- (151) Nut and bolt locks;
- (98) Pneumatics;
- (62) Refrigeration;
- (170) Wind-wheels;

with the examination and custody of caveats relating to said classes.

The clerical work of receiving and recording new cases; amending old cases; making lists of patents granted; recording all actions made; making and mailing copies of all actions not issues; classification and custody of drawings, photolithographs and printed specifications.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending and undisposed of, at the dates specified below in the twenty-eighth division of the United States Patent Office, Department of the Interior:

Character of business.	Pending Sept. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Applications:													
New	333	338	147	524	1,379	1,757	146	1,389	1,379	156	238	272	122
Old	92	373	411	54	2,940	2,922	72	2,312	2,315	69	450	443	76
Caveats		18	18		84	84		105	105		17	17	

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified by the employés in the twenty-eighth division of the United States Patent Office, Department of the Interior:

Character of business.	Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Examination of applications for patents ...	1884									40	34	36	34
Do	1885	80	80	91	100	87	83	96	91	61	80	65	62
Do	1886	85	62	70	56	66	81	67	53	31	42	62	51
Do	1887	66	56										

The division was not organized until September, 1884.

The term employé being here and in the following tables understood to signify any person whose business is the examination of applications for patent, the numbers given indicate the average number of cases of every kind disposed of by each employé, but are no index of the amount of work done compared with other divisions or individuals, because of the different amount of work required in different cases.

The following statement shows the average number of employés in the twenty-eighth division of the United States Patent Office, Department of the Interior, during the periods specified:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884									4	4	4	4
1885	4	4	5	5	5	5	5	5	5	6	6	6
1886	6	6	6	6	4	4	5	5	5	5	5	6
1887 (to March 1)	6	6	6									

The numbers in the above table refer to the number of employés engaged in examination of applications for patent. Since the organization of the division two clerks have been continuously employed.

Statement showing the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified, in the twenty-eighth division of the Patent Office, Department of the Interior.*

No data are attainable from which a statement for this sheet could be drawn. Figures as to the number of cases acted upon would be worthless as an indication of the amount of work done, or for purposes of comparison, for the reason that different

* If no account has been kept of the business performed and disposed of by each employé during said years or any part or parts thereof, the reasons why such amount has not been kept will be stated.

The following statement shows the number of employés (principal examiner and assistants) during each month of the years named :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1886.....								6	7	7	7	7
1887 (to March 1).....	9	8										

This division was organized August 9, 1886.

The following statement shows the amount of examinations of applications for patents transacted and disposed of by the employé doing the most and the employé doing the least during each month of the years named :

MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1886.....								95	133	111	85	67
1887 (to March 1).....	117	108										

MINIMUM.

1886.....								3	25	32	26	12
1887 (to March 1).....	1	32										

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business, and also number of days devoted to business by the employé present for the greatest number of days and employé present for the least number of days during the years named :

Year.	Number of employés	Average number of days.	Hours daily.	In person or by proxy.	Maximum number of days.	Minimum number of days.
1884.....			7	In person.....		
1885.....			7	do.....		
1886.....	7	100.4	7	do.....	144	42
1887 (to March 1).....	8	48	7	do.....	48	40

This division was organized August 9, 1886.

Statement showing the principal items of business transacted in the twenty-ninth division of the United States Patent Office, Department of the Interior.

Examinations of applications for patent in the following classes of invention :

- Carpentry.
- Coopering.
- Wheelwright machines.
- Wood-sawing.
- Wood-turning.
- Wood-working machines.
- Wood-working tools.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below in the twenty-ninth division of the United States Patent Office, Department of the Interior :

Character of business.	Received during 1886 (from Aug. 9).	Disposed of in 1886.	Pending Jan. 1, 1887.	Received during 1887 (to Mar. 1).	Disposed of in 1887 (to Mar. 1).	Pending Mar. 1, 1887.
Examination of applications for patent.....	1,744	1,478	266	627	757	136

The "new" and "old" applications are included in the above figures.

APPLICATION DIVISION.

Report of the application division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the application division of the United States Patent Office, Department of the Interior :

Character of business.	Received during 1884.	Disposed of in 1884.	Received during 1885.	Disposed of in 1885.	Received during 1886.	Disposed of in 1886.	Received during 1887.	Disposed of in 1887.
Applications.....	39,600	39,600	41,053	41,053	41,331	41,331	7,190	7,190

The following statement shows the average amount and character of business performed, transacted, and disposed of during the periods specified, by the employes in the application division of the United States Patent Office, Department of the Interior :

Character of business.	Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Applications.....	1884	3,724	3,732	4,192	4,104	4,028	2,371	3,253	2,948	2,883	2,964	2,559	2,907
Do.....	1885	3,377	3,321	3,901	3,761	3,584	3,511	3,296	3,060	3,186	3,352	3,170	3,531
Do.....	1886	3,570	3,657	4,434	3,915	3,389	3,536	3,393	3,072	3,035	3,029	3,052	3,249
Do.....	1887	3,483	3,710	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the average number of employes in the application division of the United States Patent Office, Department of the Interior, during the periods specified :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	8	8	8	8	8	8	8	8	8	8	8	8
1885.....	8	8	8	8	8	8	8	8	8	8	8	8
1886.....	8	8	8	8	8	8	8	8	8	8	8	8
1887 (to March 1).....	8	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employes in the application division of the United States Patent Office, Department of the Interior :

Year.	No. of employes.	Average No. of days present.	Average No. of hours employed daily.
1884.....	8	279	7
1885.....	8	276	7
1886.....	8	278	7
1887 (to March 1).....	8	48	7

The following statement shows the maximum number of days devoted to business by the employe present for the greatest number of days, and also the minimum number of days devoted to business by the employe present for the least number of days, in the application division of the United States Patent Office, Department of the Interior, during the periods specified :

	1884.	1885.	1886.	1887 (to Mar. 1).
Maximum number of days.....	285	288	292	48
Minimum number of days.....	274	125	58	45

ASSIGNMENT AND COPYING DIVISION.

Report of the assignment and copying division, Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 13, 1857.

Statement showing the principal items of business transacted in the assignment and copying division of the Patent Office, Department of the Interior.

Numbering the letters received in this division and indexing them under the name of the writer in a book prepared for that purpose, so that ready reference can be had to any letter received.

Entering in a book prepared for that purpose the name and address of the writer of each letter received, a brief statement of the contents of the letter, mentioning inclosures, if there be any; and if any money be marked on the letter as having been received by the office, the amount is placed in this book of "letters received."

After the work has been completed and the letter ready to be filed away, the actions made on the letter are entered in this book, thus making a brief record of the letters received and actions taken thereon.

Furnishing data upon each letter received, ordering copies for the guidance of the copyist, pricing the cost of work, such as copying, certifying, &c., writing and sending "cost circulars," giving cost for making copies and for "abstracts of title," charging the account (of person having a deposit in the office) with amount of fees for copies, &c., ordered, and ordering (indorsing the letter to that effect) the copies made or abstracts of title furnished, if the fees for the same have been paid.

Estimating the number of words in any matter to be copied to ascertain the fees to be charged.

Supervising the making of manuscript copies and the recording of deeds, giving out the work, charging copyists with the same, and crediting them with the amount of work accomplished upon completion.

Copying from the files, records, and printed publications, in English and foreign languages, any matter that may be requested by attorneys and others.

Comparing the copies made with the original, to correct any errors.

Revising the compared copies to insure accuracy.

Certifying to manuscript and printed copies of patents, files, records, and printed publications in the office.

Mailing all copies and reviewing all letters ordering same, to ascertain whether the order has been properly filled, money paid, and surplus remitted.

Examination of assignments and all instruments in writing received, to ascertain if they be correct for record; verification of each patent assigned, by name, invention, date, and number, with the Official Gazette; and the preparation and assortment of assignments preparatory to being placed on the digest of recorded deeds.

Sending circulars for the fees for recording deeds, and acknowledging receipt of deeds for record, stating therein the time when the deeds will be returned recorded.

Entering the names of assignees on the file-wrappers of applications for patents, so that the patent, when granted, will issue to the assignee for his interest.

Briefing deeds of assignment in the "digest of assignments," preparatory to making abstracts of title therefrom.

Directing the briefing of assignments, and examining the briefs to insure their accuracy.

Preparing the deeds for record by attaching the certificate (stating the liber and page in which the deed is recorded) and placing the seal of the Patent Office thereon.

Recording, in libers prepared for that purpose, the deeds that are sent to the office for record.

Returning the assignments, after recording the same, to the persons forwarding them for record, the number of the liber and the page on which the deed is recorded having been first indorsed in the digest, as also the date of its return, name, and address of person to whom the same is returned.

Searching the digest of assignments, to ascertain if any deed be recorded against the title of any patent, or application, so that an abstract of title can be made therefrom; and estimating the fees required for copies of the same.

Making abstracts of title from the digest, certifying to the same, and keeping a record of abstracts furnished, where, when, and to whom sent.

Answering all correspondence in relation to the deeds of assignment forwarded to the office for record, and in relation to the copying of files, records, &c.

Examining weekly list of patents, in connection with the digest of recorded deeds, so that the patents shall issue to the proper owners.

Receiving and caring for the patented files, expired caveats, extension, and appeal files, and furnishing the same for inspection to examiners, attorneys, and others that may be entitled to see the same.

Keeping daily, weekly, and monthly reports of the time and work of the employes of the division.

The following statement shows in detail the methods of transacting business in the assignment and copying division of the Patent Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

All mail addressed to the Commissioner of Patents is received in the room of the financial clerk, where it is opened and assorted, money that may be inclosed is taken out, and each amount plainly marked with blue pencil on a corner of the letter inclosing the same.

The mail is then forwarded to the mail room, where each letter is stamped with the date of its reception and given a number by which it may be identified, entered under the name of the writer, and charged to one of the divisions of the office.

Letters requesting certified or manuscript copies of any file, record, or printed publication in this office, abstracts of title of a patent or application, or inclosing an assignment for record, are charged and forwarded to division D, the assignment and copying division.

Upon arrival in this division, each letter is again stamped and given a new number, and thereafter it is known and designated by this "division number"—as "Letter No. 2625 D, '87."

The letter is indexed under the name of the writer, so that ready reference may be had to all letters written by any person or firm, and also entered in a book entitled "Letters Received," giving name and address of person or firm forwarding the letter, a brief statement as to the contents, mentioning any inclosures and the amount of money marked thereon.

They are then distributed—those requesting copies to the "data desk" and those inclosing assignments, &c., for record to another desk, to be prepared for recording.

The clerk having in charge the letters requesting copies, after ascertaining what copy is desired, procures the original and has the number of words estimated, so as to determine the cost for making copy.

When the amount of fees is ascertained an indorsement is made on the letter ordering the copy to be made, if the money has been received by the office, or, if the person ordering it has an account with the office, the amount is charged to that account, and the letter accompanying the original to be copied is taken to the clerk having charge of the copyists.

Should there be no money forwarded to pay for the copies a "cost circular" is sent to the parties requesting same, stating that the copies desired will be furnished upon the receipt of the fee, and the letter being indorsed "Cost circular for \$—, sent Meh. 1, '87" (for example), it is placed with the "incomplete letters," to await the return of the circular.

Upon its return, with the money marked thereon as having been received by the financial clerk, the original letter requesting the copy is taken from the file of incomplete letters, cross references by numbers are made on each of the letters, the copy is ordered on the back of the returned circular, and both letters are forwarded to the clerk having the copyists in charge.

This clerk enters in a register the number and date of the letter, the person's name requesting the copy, the title of the matter to be copied, and the number of words contained in the same, and in the regular order of its reception the matter is given to the copyist to be copied, being charged to the copyist in this register.

The copyist, having completed the work called for, refers the same, with the original, to the comparers, who compare the same, and if any errors appear in the copy they are corrected, and the initials of the comparers are affixed to the same, denoting that they have compared the work and found it correct.

The copy is then revised to insure accuracy, returned to the clerk having the distribution of copies in charge, who checks the same off the register as having been completed, giving the date of completion, and crediting the copyist with the number of words written.

The copy is then ready for mailing, if a certified copy is not desired.

If a certified copy is requested, a certificate is made that the copy annexed is a true copy from the files, records, or printed publications in this office, of specification, or file and contents of a patent or application, giving name, date, title of invention, &c.

This certificate is signed by the Commissioner or Acting Commissioner, attached to the copy with eyelets, ribbons, &c., and the seal of the Patent Office is stamped on the certificate, and the certified copy is then ready to be mailed.

After mailing the copy the letter is examined to ascertain if the order has been properly filled, and the proper amount paid or charged to account, and if there remains any balance the same is remitted, and the letter is then checked off in the book "Letters Received," noting the actions taken thereon, thus having a brief history of

the order, and the letter is then put away in the files, in numerical order, so that it may be readily referred to if occasion requires.

Letters requesting abstracts of title of patents or applications are, after their entry in the index and "Letters Received," sent to the clerk who searches the records to ascertain if there be any deeds recorded under the particular patent or application mentioned in the letter, and a brief of the search is made upon the back of the letter showing the number of the pages in the digest where the abstracts of title of the patent or application may be found.

The cost of the abstract is ascertained by the number of deeds found recorded, and a cost circular is sent to the party requesting abstract, stating that the same will be forwarded upon receipt of the legal fee.

An indorsement of this action is made upon the letter, and it is placed among the "incomplete letters" to await further action on the part of the person desiring the abstract of title.

When the "cost circular" is returned to this division, with the money marked on the same as having been received, the same action is taken in this matter as before explained in regard to orders for copies, the proper indorsements are made on the letters, and they are sent to the clerk who makes "abstracts of title."

A certified or uncertified transcript of the "Digest of Assignments" relating to the particular patent or application requested is then made, and if a certified abstract is requested a certificate is made that the annexed is a true copy from the digest of this office of all assignments, agreements, licenses, powers of attorney, and other instruments of writing found of record up to and including date under or relating to letters patent granted, or pending application, giving name, date, and number and title of invention of the patent or of the application.

This certificate is signed by the Commissioner or Acting Commissioner; all the papers are attached by eyelets, ribbons, &c., and the seal of the Patent Office is affixed thereto.

The abstract is then ready for mailing, but before this is done a record is made of the "abstracts furnished" in a book of that title, stating to whom, where, and when each abstract has been sent and the number of the letter upon which the same was ordered, and then the letter is "checked off," and the same course of examination is pursued as with a letter ordering copies.

A letter inclosing an instrument of writing to be recorded is entered as before explained, and the letter with the deed inclosed is taken by a clerk, who prepares the deed for record.

The deed is stamped with the date of its reception, the initial letter of the inventor's name is placed thereon; it is examined to ascertain if there be any informality therein, verified with the Official Gazette as to the name of the inventor, date, and number of the patent and title of the invention, for the purpose of digesting all instruments of writing under the name of the inventor.

The letter is indorsed (for example), "Record ordered Mch. 1, '87. 1 deed. Cost \$——. Paid," and the initial letter of the inventor's name is placed upon the letter for the purpose of ready reference to the same.

If no money is received with the letter, or if the party requesting the record has not a standing account with the office, or if a sufficient amount has not been received to pay the fee for recording, a circular is sent calling for the legal fee, and the letter with the deed inclosed is withheld from the record with "incomplete letters," until the proper fee is received by the office.

Upon the return of this circular with the fee for recording, the original letter inclosing the deed is taken from the "incomplete letters," and the deed is forwarded to record, as before stated.

The deeds relating to pending applications are taken by a clerk, who indorses the assignee's name on the file-wrapper of the application to which the deed refers for the proportion assigned, so as to denote to whom the patent shall issue when granted.

In order to do this the application has to be found by the nature of the invention recited in the deed in one of the twenty-nine examiner's rooms, or in any other part of the office where the "file" may be.

Upon finding the "file" it is carefully compared with the identification set forth in the deed, and if the deed and the application agree in this respect the assignee's name is indorsed on the file-wrapper for the proportion of the interest assigned.

The deed is marked "entered," and is then returned to the clerk who prepares it for the digest.

The deeds are then ready for digesting in the "Digest of Assignments."

Clerks on this work make a brief of each deed, and enter the same in this digest, indexed under the name of the inventor, giving the assignor's and the assignee's name, date of the instrument, date of recording the same, the title of the invention, date and number of the patent or application, if the same be given, and if not, such other identification as may be furnished in the deed.

This entry and the deeds are then examined to insure their accuracy, and forwarded to the clerk having the copyists in charge, in order to have them recorded.

The deeds are then given out to the copyists to be recorded in books entitled "Transfers of Patents," each copyist being charged with the number of deeds received by them, and upon their return are credited with them, and the number of words having been estimated, corresponding credit is given to the copyists for the same.

The record and the deeds are then compared and revised, the same as before explained relative to copies, and are then ready for return to the persons from whom they are received.

A certificate is attached to each deed, over the signature of the Commissioner, certifying that "the annexed deed is recorded," and stating in what liber and page of same the record may be found.

Before returning the deed an entry is made in the digest, opposite the brief of the deed, stating where the record of this deed may be found, when, and to what address the deed is returned.

A weekly list of patents about to be issued is furnished this division by the issue and Gazette division, giving the number of patent, name of the inventor, and title of invention, and the digest is examined to ascertain if any of these cases have been assigned, or if there be any errors in the indorsements of the assignees' names, and if any corrections are to be made, the file is called from the issue division, and the correction made, so that the patent shall issue to the proper owner or owners.

The patented files, dead or expired caveats, appeal and extension files, are sent to this division for filing and safe keeping, and the patented files are stored in boxes, numerically, so that examiners, attorneys, and others desiring the same for inspection can be readily furnished with the particular file requested.

Should any irregularity occur in any deed, copy, or letter received, and correspondence be required upon these subjects, this correspondence, as well as the general supervision of the entire work of the division, is done by the chief and assistant chief thereof.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of, at the dates specified below, in the assignment and copying division of the Patent Office, Department of the Interior:

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending at close of 1885.
Assignments for record	2,922	17,538	19,964	496	18,341	17,808	1,029
Assignments—number of words recorded			9,065,611			7,741,064	
Manuscript copies recorded	455,500	10,650,029	10,868,729	237,300	13,100,350	13,046,250	291,400
Letters received		25,905	25,905		26,604	26,604	
Letters written and mailed			3,716			2,962	
Circulars written and mailed			4,193			4,801	
Abstracts furnished			1,421			1,455	
Certified copies furnished			3,853			4,640	
Remit letters written			975			1,154	
Patent heads copied			1,652			1,830	
Words compared			20,060,360			21,303,894	
Patent files, &c., received	330,584	24,395		354,979	28,033		
Files furnished for inspection			104,285			135,945	

Character of business.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received during 1887.	Disposed of in 1887.	Pending Mar. 1, 1887.
Assignments for record	1,029	18,538	18,700	867	3,185	3,424	628
Assignments—number of words recorded			8,639,091			1,361,500	
Manuscript copies recorded	291,400	12,007,360	11,947,360	351,400	2,548,950	2,404,550	495,800
Letters received		26,572	26,572		4,689	4,689	
Letters written and mailed			2,276			451	
Circulars written and mailed			4,225			841	
Abstracts furnished			1,419			298	
Certified copies furnished			4,098			764	
Remit letters written			1,194			165	
Patent heads copied			1,460			175	
Words compared			21,343,001			3,765,650	
Patent files, &c., received	383,012	26,077		409,089	3,468		
Files furnished for inspection			154,622			21,975	

The minimum daily averages given above were made, in almost every case, by copyists who had only been in the division a few days, and were consequently inexperienced.

Both averages have been made for thirty-seven employés only, as that is the average force employed for the time in making manuscript copies and in recording assignments.

The other employés of the division being engaged on current work, depending on the number of letters, deeds for record, &c., as may be received in each day's mail, the amount of work can only be shown in the aggregate, as shown in another part of the report. (See page 349).

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the assignment and copying division of the Patent Office, Department of the Interior:

Year.	No. of employés.	Average No. of days present.	Average No. of hours employed daily.	No. by proxy.	No. of working days.
1884	69	252.3	6.30	None.	306
1885	83	249.3	6.30	None.	302
1886	88	246.2	6.30	None.	304
1887 (to March 1)	86	42.7	6.30	None.	48

The above averages are small on account of the number of days lost to this division by persons who were assigned late in the month or transferred from the division during the month.

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the assignment and copying division of the Patent Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to Mar. 1).
Maximum number of days	276	298½	299½	48
Minimum number of days	188	190	224	6

ATTORNEYS' ROOM.

Report of the attorneys' room, Patent Office, on the methods of business and work, as requested by Senate Select Committee and called for by Department circular of March 23, 1887.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the years named, also the number of days devoted to business by the employé present for the greatest number of days and employé present for the least number of days:

Year.	Average No. of days.	Hours daily.	Maximum No. of days.	Minimum No. of days.
1884.....	272	7	292	241
1885.....	276	7	284	270
1886.....	289	7	300	267
1887 (to March 1)	42	7	42	42

Statement showing the principal items of business transacted in the attorneys' room of the Patent Office, Department of the Interior:

- Distributing orders for files and drawings in the different divisions.
- Collecting files and drawings and bringing them to attorneys' room.
- Returning same to the divisions from which they were collected.

Statement showing in detail the methods of transacting business in the attorneys' room of the Patent Office in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party:

The force of the attorneys' room comprises one clerk, who has general supervision and charge, and two messengers.

The business transacted by the employes in the attorneys' room consists in receiving the written orders of patent attorneys for files and drawings of applications for patents on file in the Patent Office, transmitting them to the different divisions of the office, collecting the cases ordered, and bringing them to the attorneys' room, where they are distributed.

After cases have been examined by attorneys they are returned to the divisions from which they were collected.

The number of cases collected and returned will average two hundred daily.

In addition to the above there are distributed to those ordering them about three hundred copies, daily, of drawings of patented inventions, termed "references."

The following statement shows the average number of employes in the attorneys' room of the Patent Office, Department of the Interior, during the periods specified:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	3	3	3	3	3	3	3	3	3	3	3	3
1885.....	3	3	3	3	3	3	3	3	3	3	3	3
1886.....	3	3	3	3	3	3	3	3	3	3	3	3
1887 (to March 1).....	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The character of business performed makes it unnecessary to furnish a statement showing the maximum and minimum amount of business transacted and disposed of by the employe doing the most and the employe doing the least during the periods specified, in the attorneys' room, of the Patent Office, Department of the Interior:

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employes in the attorneys' room of the Patent Office, Department of the Interior:

Year.	No. of employes.	Average No. of days present.	Average No. of hours employed daily.
1884.....	3	272	7
1885.....	3	276	7
1886.....	3	289	7
1887 (to March 1).....	3	42	7

The following statement shows the maximum number of days devoted to business by the employe present for the greatest number of days, and also the minimum number of days devoted to business by the employe present for the least number of days in the attorneys' room of the the Patent Office, Department of the Interior, during the periods specified:

	1884.	1885.	1886.	1887 (to Mar. 1).
Maximum number of days.....	32	284	300	42
Minimum number of days.....	241	270	267	12

CHIEF CLERK'S DIVISION.

Report of the chief clerk's division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee and called for by Department circular of March 23, 1887.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the chief clerk's division of the Patent Office, Department of the Interior :

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Received during 1886.	Disposed of in 1886.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.
Daily excuse slips		6,522	6,522		7,594	7,594	10,127	10,127	1,102	1,102
Daily reports		8,582	8,582		8,364	8,364	8,564	8,564	1,440	1,440
Weekly reports		2,392	2,392		2,392	2,392	2,392	2,392	368	368
Monthly reports		356	356		356	356	356	356	64	64
Applications for leave		1,572	1,572		1,573	1,573	1,782	1,782	165	165
Coupon books	1,496	3,213	3,280	229	1,404	1,553				
Coupon sheets	702	64,500	59,813	5,073	37,927	43,000				
Letters written			8,879			8,036		9,337		1,720

The following statement shows the average amount and character of business performed, transacted, and disposed of, during the periods specified, by the employes in the chief clerk's division of the United States Patent Office, Department of the Interior :

Character of business.	Average amount transacted during each month.											
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.												
Daily reports	650	600	650	650	650	625	650	650	625	729	648	702
Weekly reports	230	184	184	184	230	184	184	230	184	230	184	184
Monthly reports	32	32	32	32	32	32	32	32	32	32	32	32
Applications for leave	17	56	71	85	107	101	121	197	156	194	163	204
Coupon books	296	355	306	353	293	235	238	257	216	273	187	271
Coupon sheets	6,221	6,391	6,774	6,535	4,803	4,129	4,080	4,586	4,076	4,900	3,504	3,820
Letters written	708	706	750	711	656	559	781	785	828	628	759	708
1885.												
Daily reports	682	594	648	728	700	728	728	700	728	756	672	700
Weekly reports	230	184	184	184	230	184	184	230	184	230	184	184
Monthly reports	32	32	32	32	32	32	32	32	32	32	32	32
Applications for leave	70	78	95	72	95	69	161	197	183	203	135	215
Coupon books	194	159	220	280	700							
Coupon sheets	5,059	7,620	9,619	19,760	43,000							
Letters written	831	656	870	764	566	699	627	573	596	714	579	559
1886.												
Daily reports	700	664	756	728	700	728	739	756	806	806	744	806
Weekly reports	230	184	184	184	230	184	184	230	230	184	184	184
Monthly reports	32	32	32	32	32	32	32	32	32	32	32	32
Applications for leave	74	93	103	96	94	104	160	227	197	202	184	284
Letters written	669	693	744	773	759	761	782	878	798	884	795	801
1887.												
Daily reports	750	690										
Weekly reports	230	184										
Monthly reports	32	32										
Applications for leave	82	83										
Letters written	888	807										

The following statement shows the average number of employés in the chief clerk's division of the United States Patent Office, Department of the Interior, during the periods specified :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	5	5	5	4	5	4	4	4	5	5	5	5
1885.....	5	6	5	5	6	5	5	4	5	5	6	6
1886.....	6	6	6	6	6	6	6	6	7	7	7	7
1887 (to March 1)	7	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the chief clerk's division of the United States Patent Office, Department of the Interior :

Year.	No. of employés.	Average No. of days present.	Average No. of hours employed daily.	No. by proxy.
1884.....	5	193	7	0
1885.....	5	164	7	0
1886.....	6	291	7	0
1887 (to March 1)	7	42	7	0

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the chief clerk's division of the United States Patent Office, Department of the Interior, during the periods specified :

	1884.	1885.	1886	1887 (to Mar. 1).
Maximum number of days	290	260	298	48
Minimum number of days	125	34	211	46

EXAMINERS'-IN-CHIEF DIVISION.

Report of the examiners'-in-chief division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

The following statement shows the amount and ebaracter of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of, at the dates specified below, in the division of the examiners-in-chief, in the United States Patent Office, Interior Department :

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending Jan. 1, 1886.	Received during 1886.	Disposed of in 1886.	Pending Jan. 1, 1887.	Received up to Mar. 1, 1887.	Disposed of up to Mar. 1, 1887.	Pending Mar. 1, 1887.
Ex-parte cases	22	443	440	25	610	563	72	675	670	77	95	103	69
Interference cases	2	47	40	9	57	54	12	106	95	23	13	15	21
References from the Commissioner .....	.....	.....	.....	.....	30	30	0	37	37	0	10	10	0

Statement showing the principal items of business transacted by the examiners'-in-chief division of the U. S. Patent Office.

The accompanying statement, showing the amount and character of the business received, transacted, disposed of, pending, &c., will suggest the principal items of business transacted in this division :

The three examiners-in-chief constitute a board of appeals, who sit together to "revise and determine upon the validity of the adverse decisions of examiners upon applications for patents, and for reissues of patents, and in interference cases, on the written petitions of the appellants," as per section 482, Revised Statutes. Their functions are purely judicial, and cases coming to them are duly placed on a docket in the order of their reception by the board and are assigned for hearing and oral argument in the same order.

It is the present practice of the board to assign from four to six ex-parte cases for hearing each day, except on such days as interference cases are heard, and on Saturdays, which latter are reserved for clearing-up days. The interference cases now average about two per week, and only one is assigned for hearing on any one day. These cases often require the examination of a large mass of testimony, and necessarily occupy much time both in argument and in decision.

Frequently motions are made, argued, and determined, to postpone, or rehear, or dissolve interferences on grounds involving the merits of the cases, and many matters and questions are now referred to the board by order of the Commissioner for examination and report upon intricate questions of practice, under the provisions of section 482, Revised Statutes.

The decisions of the board upon all matters thus brought before it and acted on are written out and signed by all the members thereof, or a majority concurring, and type-written for the files, and also recorded in books provided for the purpose.

The board has a head clerk, who attends to the reception and docketing of all cases as received, the preparing and sending out of all notices of hearings, postponements, decisions, and accounts on motions, and to the preparation of cases for hearing on the day of argument, and the collection of the patents, publications, authorities and models cited as references to be used during the argument; in short, all the general current duties of a clerk in such position.

One copying clerk (type-writer), and one manuscript copying and recording clerk are also employed, and one messenger, whose duties are such as pertain to those positions. No account from which a monthly average of work done, or a maximum and minimum statement, as per schedule A, could be prepared has ever been kept, said work being currently performed under the immediate direction of the board in accordance with the exigencies of the work in hand. The time report of the department shows the maximum and minimum attendance of the clerical force, an abstract from which is furnished herewith.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business, and also number of days devoted to business by the employé present for the greatest number of days and employé present for the least number of days during the years named :

Year.	Average No. of days.	Hours daily.	In person or by proxy.	Maximum No. of days.	Minimum No. of days.
1884	306	7	In person ...	276	267
1885	301	7	.....do	271	268
1886	305	7	.....do	275	275
1887 (to March 1).....	48	7	.....do	48	44

The board has been in session on all days when the office has been open for business during the several years mentioned. No time report has been kept, except for the clerical force, from which the above maximum and minimum statement has been compiled.

DRAFTSMAN'S DIVISION.

Report of the draftsman's division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the draftsman's division of the United States Patent Office, Department of the Interior.

MECHANICAL DRAFTING.

1. Examination of drawings of all applications for patents filed as to their conformity to office rules, accepting or rejecting them, and designating informalities.

2. Estimating cost of making drawings to complete applications and cost of tracings.
3. Making drawings and tracings.
4. Retouching and correcting drawings for reproduction.

DRAWINGS.

1. Custody of original drawings of patents, reissues, designs, and trademarks, rejected, abandoned, and forfeited cases, and of applications passed for issue which are awaiting payment of final Government fees.
2. Classification and distribution of drawings and reproductions.
3. Selection of references cited by examiners in applications for patents.
4. Selection of drawings for weekly issues of patents.
5. Record of classes of inventions by classes and subclasses.
6. Examination of proof copies of photolithographs of drawings and the record thereof.
7. Selection and arrangement of copies of patents by classes and subclasses of inventions for bound volumes.
8. Selection of printed copies of patents for foreign countries in exchange for similar publications.

LETTERS.

Recording, indexing, and furnishing the data upon all letters pertaining to the division, including orders for copies of patents, drawings, and tracing; estimates of classes of inventions, subscription for copies of patents; dates and numbers of patents, names of inventors, dates of renewals and extensions; filing of rejected and abandoned cases; cost of copies, tracings, drawings, coupons, &c.

PASTING AND FOLDING.

1. Attaching copies of the drawings to specifications of current and back issues of patents, designs, trademarks, &c.
2. Mounting and trimming drawings of foreign patents.
3. Mounting photolithographs for office folios.
4. Attaching claims to drawings and photolithographs.
5. Repairing, mounting, and restoring drawings and bound volumes.

MISCELLANEOUS.

The miscellaneous duties of the division cover a variety of work requiring a thorough knowledge of nearly every branch of office and the cooperation thereof. These duties, though varied and important, cannot be classified under specific heads.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the draftsman's division of the United States Patent Office, Department of the Interior :

Character of business.	Pending Jan. 1, 1884.	Received during 1884.	Disposed of in 1884.	Pending Jan. 1, 1885.	Received during 1885.	Disposed of in 1885.	Pending at close of 1885.
Drawings, applications examined.....		39,669	39,669		41,053	41,053	....
Orders received and drawings made.....	23	1,049	987	62	1,172	1,112	60
Drawings mailed.....		851	851		867	867	....
Letters received, recorded, indexed, &c.....		20,822	20,822		22,923	22,923	....
Letters answered by circular and written.....		5,645	5,645		6,229	6,229	....
Copies selected, mailed and delivered.....			828,415			1,013,377	....
Tracings, orders received and completed.....	18	695	648	18	882	843	39
Sets reproductions received, banded, &c.....		29,530	29,530		35,262	35,262	....
Proofs examined, drawings classified.....		28,530	28,530		34,691	34,691	....
Sets specifications received, banded, &c.....		37,338	37,338		38,240	38,240	....
Sets copies pasted and folded.....		19,469	19,469		36,315	36,315	....
Claims attached to drawings and photographs.....		45,471	45,471		54,706	54,706	....
Drawings and volumes restored.....		626	626		337	337	....
Foreign patents and photographs mounted.....		14,703	14,703		38,978	38,978	....
File wrappers pasted and folded.....		45,745	45,745		44,410	44,410	....
Drawings rejected and abandoned cases received.....		11,607	11,607		14,545	14,545	....
Coupons received and recorded.....		205,770	205,770		239,162	239,162	....

EMPLOYÉ DOING THE LEAST—MINIMUM.

Character of business.	Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Draftsman.	1884	\$57 75	\$34 25	\$54 50	\$69 50	\$60 50	\$40 00	\$56 00	\$27 00	\$28 50	\$59 00	\$37 00	\$57 50
Tracer.....		37 00	26 00	44 00	65 25	52 75	44 00	34 25	30 25	21 25	27 50	38 50	69 75
Draftsman.	1885	54 50	45 50	52 00	66 00	63 00	50 25	58 00	45 00	48 00	38 25	53 00	48 00
Tracer.....		16 50	29 75	46 50	60 50	46 00	38 75	48 75	31 50	33 55	31 50	23 75	24 50
Draftsman.	1886	62 00	60 00	51 00	63 00	72 00	57 00	60 00	74 00	25 00	76 50	62 00	61 25
Tracer.....		56 50	47 50	25 25	40 00	43 25	40 75	18 50	37 75	22 25	24 25	22 75	38 00
Draftsman.	1887 *	80 00	76 75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tracer.....		43 00	35 75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* To March 1.

Draftsmen and tracers are the only employés of this division who are engaged on specific duties which can be reported under this statement.

In making the report on minimum amount of work done no allowance was made for time lost from any cause.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the draftsman's division of the United States Patent Office, Department of the Interior :

Year.	No. of employés.	Average No. of days present.	Average No. of hours employed daily.	No. by proxy.	No. of working days.
1884	84	265 ²⁹ / ₁₀	6½	None	306
1885	88	267 ⁸¹ / ₃₈	6½	None	302
1886	73	263 ⁵ / _{7½}	6½	None	304
1887 (to March 1,)	70	43 ³ / ₂	6½	None	49

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days and also the minimum number of days devoted to business by the employé present for the least number of days in the draftsman's division of the United States Patent Office, Department of the Interior, during the periods specified :

	1884.	1885.	1886.	1887 (to March 1).
Maximum number of days.....	302	296	296	49
Minimum number of days	217½	142	182	36

FINANCIAL CLERK.

Report of the financial clerk, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the amount and character of business received, transacted, and disposed of during the period, and on hand, pending and undisposed of, at the dates specified below, in the division of financial clerk, in the office of the Commissioner of Patents :

Character of business.	Received during 1884.	Received during 1885.	Received during 1886.	Received during Jan., Feb., and Mar., 1887.
Applications	\$970, 175 00	\$1, 074, 090 00	\$1, 042, 090 00	\$275, 970 00
Copies	35, 831 30	73, 416 85	71, 675 35	22, 710 55
Recording assignments.....	24, 004 00	24, 367 50	23, 256 30	6, 574 05
Subscription to Official Gazette.....	11, 845 50	13, 141 80	13, 926 75	7, 663 25
Registration of labels.....	3, 943 00	3, 042 00	3, 603 00	756 00
Sale of old iron .....	.....	31 00	.....	.....

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the financial division of the Patent Office, Department of the Interior :

Year.	No. of employés.	Average No. of days present.	Average No. of hours employed daily.
1884	5	290	7
1885	5	247	7
1886	5	205	7
1887 (to March 1)	5	39	7

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days in the financial division of the Patent Office, Department of the Interior, during the periods specified

	1884.	1885.	1886.	1887 (to March 1).
Maximum number of days.....	307	302	270	48
Minimum number of days.....	183	222	113	48

INTERFERENCE RECORD BRANCH OF DIVISION A.

Report of the interference record branch of division A, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

The following statement in detail of business in the interference record division of the United States Patent Office for the years 1884, 1885, 1886, and 1887 (to March 1):

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	301	340	384	433	496	435	395	353	397	501	415	406
1885.....	587	510	568	626	682	610	606	640	613	639	563	458
1886.....	552	543	614	666	611	687	598	576	639	679	898	799
1887 (to March 1)	928	1,004	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

A number of letters written.

In view of the miscellaneous character of the work of this division it is impossible to give an estimate of the amount of work done by the whole division, or by any of the persons employed herein.

The following statement shows the average number of employés during each month of the years named :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	6	6	6	6	6	6	6	6	6	6	5	6
1885.....	5	5	5	5	5	5	5	5	6	5	5	5
1886.....	5	6	6	6	6	6	6	6	7	7	7	7
1887 (to March 1)	7	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

In consequence of the frequent changes in the *personnel* of the interference record division and the irregularity of the receipt of matters pertaining thereto, it is impossible to keep a correct account of the business transacted and disposed of by the employé doing the most or the employé doing the least herein.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the years named; also the number of days devoted to business by the employé present for the greatest number of days and the employé present for the least number of days:

Year.	Average No. of days.	Hours daily.	Maximum No. of days.	Minimum No. of days.
1884.....	254	7	238	186
1885.....	276	7	299	268
1886.....	285	7	285	258
1887 (to March 1).....	47	7	48	20

Statement showing the principal items of business transacted in the interference record division of the United States Patent Office.

Preparing cases by making up the files for the examiner of interferences, and keeping a record of the same.

The recording and briefing of all mail matter and acknowledging the receipt of the same in matters pertaining to interference cases.

Keeping a complete record of the times of hearing fixed by the examiner of interferences, and of his decisions and the decisions of the primary examiners in interference cases; also a record of all exhibits filed in the cases to which they refer, and the record and the custody of all cases finally disposed of by the examiner of interferences.

Preparing and docketing all appeals to the Commissioner and sending out the notices of hearing on the same.

Recording all decisions of the Commissioner and sending the notices of the same.

Keeping a record of all appeals to the examiners-in-chief and their actions thereon, together with the custody of all cases disposed of by that tribunal.

Record of all cases submitted to the committee on division, and their actions thereon.

Furnishing copies of all preliminary statements and decisions.

Statement of the interference record division of the United States Patent Office showing the methods adopted in transacting the principal business matters, beginning with the receipt of the matter by the Department, or by any of the agents of the Department, and, giving in consecutive order, the various steps taken by each of such business matters, through the various divisions of the office and the various Bureaus, and divisions of such Bureaus and employés through whose hands the same passes and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

All mail matter pertaining to interference business received in interference record division is stamped with the date of its reception, assorted, and properly indorsed, entered in the interference record and in the particular case to which the same refers, and duly acknowledged to the attorneys of record for the parties in interest.

All interferences declared by the primary examiner are properly prepared and entered of record in the order of their dates, having a jacket with names of the interfering parties and the subject-matter of the case indorsed thereon, after which they are entered of record and forwarded to the examiner of interferences.

INTERFERENCE DIVISION.

Report of the interference division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending and undisposed of, at the dates specified below, in the interference division of the United States Patent Office, Department of the Interior:

Character of business.	Pending Jan.	Received dur-	Disposed of in	Pending Jan.	Received dur-	Disposed of in	Pending Jan.	Received dur-	Disposed of in	Pending Jan.	Received dur-	Disposed of in
	1, 1884.	ing 1884.	1884.	1, 1885.	ing 1885.	1885.	1, 1886.	ing 1886.	1886.	1, 1887.	ing 1886.	1887.
Cases for final decision	32	375	407	8	565	558	15	643	640	12	102	82
Cases for interlocutory action	17	2,227	2,236	0	2,856	2,856	0	3,096	3,082	21	499	514
Cases for declaration	0	441	441	0	762	762	0	700	700	0	97	97

This latter report includes the number of cases received and disposed of up to March 1, 1887.

The following statement shows in detail the business in the interference division of the office of Commissioner of Patents, for the years 1884, 1885, 1886, and 1887 (to March 1):

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	319	356	310	301	344	269	134	290	252	237	205	235
1885.....	301	237	277	374	372	366	405	395	366	404	231	337
1886.....	389	342	383	363	351	372	416	337	343	388	385	353
1887 (to March 1)	379	314	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

These figures indicate the number of cases acted upon each month.

The following statement shows the average number of employés during each month of the following years:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	2	2	2	3	3	3	3	3	3	3	3	3
1885.....	3	3	3	3	3	3	3	3	3	3	3	3
1886.....	4	4	4	4	4	4	4	4	4	4	4	4
1887 (to March 1)	6	6	6	.....	.....	.....	.....	.....	.....	.....	.....	.....

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employés in the interference division of the United States Patent Office, Department of the Interior:

Year.	Number of employés.	Average number of days present.	Average number of hours employed daily.
1884.....	2	182	7
1885.....	3	209	7
1886.....	4	213	7
1887 (to March 1).....	6	48	7

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days, in the interference division of the United States Patent Office, Department of the Interior, during the periods specified :

	1884.	1885.	1886.	1887 (to March 1).
Maximum number of days	263	261	265	48
Minimum number of days	201	250	248	46

No account has been kept of the business performed and disposed of by each employé during the years 1884, 1885, 1886, and 1887, or any part or parts thereof, and the reasons why such account has not been kept, are as follows:

The duties of this division are almost exclusively judicial. The mere statement that an employé has disposed of so many cases in a given length of time conveys no idea as to the amount of labor he has put upon such cases, of the intelligence of the employé, or of the quality of the work he may have done. It would be within the power of the chief of the division to assign a certain class of cases to one assistant and another and different class to another assistant, and if the number of actions made were to be the measure of the value of the services of an employé, the one with the least capacity and industry in the division might thereby be credited with doing four or five times the labor of the most able, industrious, and efficient employé. The reading of one hundred pages of testimony is one thing, and the consideration of such testimony, and the weighing of the same as evidence, is entirely another thing. It would follow from the very nature of the case that the chief of the division would give to his ablest assistant those cases involving the most intricate questions both of law and of evidence, and give those requiring the least care and the least judgment to the weakest man in his force, and especially those cases which are decided simply upon the record, and by default would go to the weakest member of his force, and such labor amounts to almost simply clerical work, and yet at the end of the month the weakest and most inefficient man would have the largest number of actions credited to his account. There is no way of measuring the value of the services of an employé of this division but by a scrutiny of his individual work on individual cases—quality and not quantity being the standard of measure—and therefore any attempt to make a record of the same would probably result in failure, and, therefore, such attempt has never been made. In fact it is possible in this division for an employé to dispose of twice the work that he can actually do and do well. In other words, it is within the very nature of the work possible for him to let superficial examination and guess-work take the place of careful consideration and laborious research, and such being the case, the quality of work done in the division must always depend upon careful selection of the proper men to conduct it, more than upon any rule or system that can be established.

Interference proceedings are as a rule very expensive, frequently costing the litigants in a single case thousands of dollars. The ablest patent attorneys in the country are often employed to conduct proceedings to this end and are presumably paid large fees for such services. The direct result of this expenditure of time and money is a judgment of priority of invention in favor of one of the litigants, and upon which a patent issues to such successful party. Such being the case, it would seem that the time consumed by an employé in arriving at a conclusion is a matter of small consequence, and that all that should be required of him in that particular is that he should give his time strictly to business; that beyond this the sole consideration should be quality of the work done by him; and as a not inconsiderable proportion of the decisions of the division are reviewed by appellate tribunals, the affirmance or reversal of decisions in cases affords a very correct criterion by which the quality of the same may be judged.

As to the labor of the clerical force a similar course of reasoning would apply in explanation of the failure to keep, and the impracticability of keeping, a strict record of daily work. The clerical work consists of many and important details, in the disposition of which accuracy is the essential requisite, and this, combined with a willingness and capability of being reasonably rapid, form the true test of merit.

Statement of the interference division of the United States Patent Office, showing the methods adopted in transacting the principal business matters, beginning with the receipt of the matter by the Department, or by any of the agents of the Department, and giving in consecutive order the various steps taken by each of such business matters through the various divisions of the office and the various Bureaus and divisions of such Bureaus, and employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of and notice thereof duly given to the proper party.

The business of this division pertains to interference proceedings, an interference being defined to be as follows: "An interference is a proceeding instituted for the purpose of determining the question of priority of invention between two or more parties claiming substantially the same patentable invention."

It is the duty of the primary examiner to determine in the first instance whether or not an interference exists, and if he deems one to exist letters are written to the parties informing them of such interference, and these letters, together with the files and drawings, are transmitted to the examiner of interferences. Upon receipt of the same such letters are carefully examined by one of the clerks in the interference division, and if the case is properly prepared a time is noted in such letters for the filing of preliminary statements and the same are mailed to the parties. This action is known as the declaration of the interference by the examiner of interferences. If such interference is in any way improperly prepared it is returned to the primary examiner for correction.

The preliminary statements referred to should set forth, the date of conception, disclosure to others, the making of a drawing and a model, reduction to practice, and extent of use. Such statements remain sealed until the limit of time given for filing the same has expired. Then such statements are opened, and if any information as to the steps above referred to is omitted from such statements, letters are written to the parties requiring the same to be supplied. If the junior party fail to file a statement within the time allowed, or if his alleged dates fail to overcome the dates of the senior party, judgment is rendered in favor of the senior party upon the record. If the senior party fail to file a statement he is restricted to his record date—the date of filing of his application—and is permitted to take rebutting testimony only; and in setting times for taking testimony such fact is indicated in the notices thereof. Each party to the interference is given a time within which to take his testimony-in-chief (unless the senior party be restricted as above), the junior party a time in rebuttal, and a day of hearing to be had before the examiner of interferences upon the evidence presented is also set. After such times have been set by the office the parties are at liberty to stipulate between themselves for such extensions as they may desire, and if such stipulations are properly signed they are approved by the examiner of interferences, and letters are sent to the parties setting times in accordance with such stipulations.

Ex parte requests, stipulations, &c., are filed from time to time in interference cases—all of which are acted upon by the examiner of interferences, and letters written by the clerk notifying the parties of the action taken.

Motions are also presented, upon which elaborate arguments are frequently had, and the determination of which involves legal research and the expenditure of much time and labor. These cases are sometimes continued through a period of two years or more before ready for final decision, and hence involve much work.

When the day of final hearing arrives, arguments based upon the evidence presented are made by counsel representing the interfering parties. Such arguments are sometimes of great length, extending through the entire day, and perhaps into the next day; but these are exceptional. The ordinary argument covers a period of not more than half a day. Many cases are submitted upon the evidence without argument, or merely upon briefs filed by the parties or their counsel. After such argument has been had, the case comes up in its turn for final decision. This involves the reading of the testimony—which in many cases is voluminous—much legal research, and the expenditure of a large amount of time. There are some cases in which no testimony is taken by either party, and the result is a decision upon the record in favor of the senior party.

There are also *ex parte* cases which involve the question of public use or sale of the invention more than two years prior to the filing of the application. These require much labor, and are conducted usually at great expense to the parties. Testimony is taken in these cases as in interference cases—sometimes at the expense of the office—and a hearing is had before the examiner of interferences upon the testimony taken. In a majority of instances these cases involve public interest of considerable importance.

There are many interferences which involve more than two parties—some containing as many as twelve; and, as can be readily seen, these necessitate much work, and are the occasion of great contest.

It may perhaps be well to state that each party to an interference is notified of all actions taken, and this requires a great amount of clerical work. Records are kept of every action and every step taken from the time a case reaches this division until finally disposed of.

Appeal lies from interlocutory matters to the Commissioner of Patents, and in the first instance from final decisions upon the merits to the board of examiners-in-chief.

ISSUE AND GAZETTE DIVISION.

Report of the issue and Gazette division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

The following statement shows in detail the business in the issue and Gazette division of the office of Commissioner of Patents, for the years 1884, 1885, 1886, and 1887 (to March 1):

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	2,014	1,014	1,796	2,338	1,676	1,765	2,009	1,718	1,512	1,537	1,394	1,827
1885.....	1,453	1,453	2,219	2,175	2,171	2,654	2,142	1,997	2,480	2,110	2,010	2,437
1886.....	1,740	1,740	2,426	2,065	1,989	2,527	1,813	2,303	1,682	1,779	2,100	1,795
1887 (to Mar. 1)	1,590	1,590	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The above statement shows the number of patents and certificates of registration of trade-marks and labels issued each month. This is the most important of the various kinds of work performed in the division. It is impossible to summarize all in a single tabulated statement. (See page — for further exhibit.)

The following statement shows the average number of employes during each month of the following years:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	45	45	44	45	45	45	45	47	48	46	46	45
1885.....	43	43	44	44	44	44	43	43	42	45	44	42
1886.....	42	43	43	44	43	43	43	46	47	46	46	46
1887 (to March 1)	48	47	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The work in this division is of so varied a character that, with the exception of the proof-readers, of whom there are from six to eight, not more than two persons are engaged in like duties. It is therefore manifestly impossible to rate their efficiency in the comparative form desired.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the years named, also the number of days devoted to business by the employe present for the greatest number of days and employe present for the least number of days during the following years:

Year.	Average No. of days.	Hours daily.	In person or by proxy.	Maximum No. of days.	Minimum No. of days.
1884.....	260	7	In person.....	298	45
1885.....	266	7	...do.....	287	20
1886.....	266	7	...do.....	300	19
1887 (to March 1).....	43	7	...do.....	48	6

Statement showing the principal items of business transacted in the issue and Gazette division of the Patent Office, Department of the Interior.

(1) To receive from the examiners all cases allowed by them, to carefully revise them in the matter of their preparation in form; the correctness of the interlineations and insertions of amendments; the completeness of the oaths, signatures, witnesses, &c.; in a word, to see if they conform in all respects to the requirements of the statutes and rules of the office, and edit them for the printer; then issue the notice of allowance provided by rule 159, prepare and file a duplicate thereof, and file the cases in pigeon holes under the proper alphabetical combinations, for convenient access.

(2) Upon the receipt of the final Government fees to make a record thereof, find, and, after unmistakable identification of the case, apply the fee and mail a receipt therefor.

(3) To enter upon the alphabetical register under the proper combination the name of the inventor, the names of all assignees, the title of the invention, the date the patent will bear, its number, the address to which it is to be sent, and date of mailing. These entries include all patents issued and all trade-marks and labels registered.

(4) To spread upon the record the complete grant of the patent in due form, with the names of all grantees, the interest of each and how acquired, the title of the invention and the limitation of the term of the patent under section 4887, Revised Statutes, by reason of foreign patents, if any, reciting each.

(5) The preparation of a complete memorandum of a case, as soon as the final fee is paid, for the assignment division, to enable it to make a search of its records to determine who are to appear as grantees in the patent.

(6) The cases, having been prepared for the printer, are forwarded to the Government Printing Office, and returned with proof-sheets of the specifications, with amendments inserted attached, which are read with the original manuscript, and errors, inconsistencies, and incompleteness in the text, particularly in the claims, brought to the notice of the examiner, and corrected and perfected for issuance to the patentee.

(7) Letters patent, in each case, consisting of a fine manuscript copy of the record, upon engraved blanks on bond paper, a printed copy of the specification, and a photolithograph copy of the drawing, attached together and secured by ribbon and the seal of the office, are prepared, presented to the Commissioner and Secretary of the Interior for signatures, and mailed to each patentee or his attorney.

(8) The preparation and publication of the Official Gazette, weekly, which consists of:

(a) The preparation upon dummy cards, 19 by 11 inches, of each page of the Gazette from advance sheets of drawings and printed copies of the claims, prepared especially for this purpose, with headings and briefs.

(b) The statistical and miscellaneous matter on the first two pages of each number and the decisions, for which in most instances syllabi have to be furnished.

(c) The weekly indexes in two forms, patentees, and inventions, containing the names and titles, with the additional data of patent number and page references to both drawings and specifications in the Gazette and monthly volumes. These indexes are successively arranged for the weekly Gazette, the monthly volumes issued under section 490, Revised Statutes, the quarterly volumes of the Gazette, and, finally, for the annual report of the Commissioner of Patents, to be forwarded to Congress at the close of each calendar year, in which latter form they make, when printed, a volume of quarto size, brevier type, of over 600 pages.

(9) The entry of all subscriptions and orders for the Official Gazette, and all designations by members of Congress of public libraries to be supplied with the Gazette, under the act of May 18, 1872, with the attendant correspondence and the mailing of the Gazette weekly.

(10) The registering, answering, and filing of all correspondence coming to this branch of the office.

(11) All printing and binding for the Patent Office is ordered and directed through this division, and the work received and receipted for.

(12) The following are the printed publications of the office prepared, edited, and printed under the direction of this division:

(a) The specifications of all patents as they are issued weekly, 7 by 11 inches, double column, long primer type, of which 152 copies are printed. (Joint resolution of January 11, 1871.)

(b) Bound volumes of same, using the type already set for weekly issues, with titles and headings reduced to width of a column; of these, 200 volumes are issued monthly, with indexes. (Section 490 and 491, R. S.)

(c) The Official Gazette; pamphlet, in covers; about 130 pages, of which over 100 are photolithographed, containing the claims and illustrations of the weekly issues of

patents, with indexes. Edition, 6,500, 500 of which are bound quarterly. (Act of May 18, 1872.)

(d) Quarterly indexes to patentees and subject-matter of inventions, to accompany the quarterly volumes of the Gazette. Issued quarterly; edition, 6,500.

(e) Annual indexes. Lists of inventors and inventions, alphabetically arranged, forming part of the Commissioner of Patent's report to Congress at the end of each calendar year, printed by order of Congress, of which the office orders, while in type, 6,500 copies.

(f) Commissioner's and Court Decisions. Published annually in octavo form, containing all the decisions published in the Official Gazette during the year, with digest and indexes. Edition, 1,200; 300 bound full sheep, 900 in paper covers.

Statement showing in detail the methods of transacting business in the issue and Gazette division of the United States Patent Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the said division office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employes through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each, until the same is finally disposed of, and notice thereof duly given to the proper party.

History of a case from the time it receives favorable adjudication at the hands of the examiner until the letters patent are issued and mailed to the patentee or his attorney:

All cases allowed in either of the twenty-nine examining divisions of the Patent Office are immediately delivered to the issue and gazette division, together with the drawings.

They first pass into the hands of the revisers, who examine the papers to see if they are perfect in every respect in the matter of signature, witnesses, oath, &c.; that the amendments are all present and properly entered, files duly signed, drawings perfect, &c.

The files and drawings are then sent to the draftsman, who takes the drawing, receipting on the file therefor, and returns the files to the issue division, where they are delivered to the allowance desk. Notices of allowance are then prepared in duplicate, one of which is placed in the file, the other mailed to the applicant or his attorney, as required by section 4885, Revised Statutes.

The files are then placed in pigeon holes arranged alphabetically, to await the payment of the final fee, \$20. (This must be paid within six months from the date of the notice of allowance, else the case becomes forfeited, in which event the file is withdrawn from the pigeon-hole, entered upon a "Record of Forfeited Cases" and returned to the examiner.)

Upon the payment of a final fee, after the fee has been entered upon the Final Fee Register, the case is withdrawn from the pigeon-hole, the date of the receipt of the fee is entered upon the file, and the file passes to the clerk in charge of the annual Alphabetical Register of Patents, where it is entered under the proper combination, together with the title of the invention, the date the patent will bear, and the name of the attorney or person to whom it will be sent. Thence it passes to the clerk who makes up the Record of Patent Heads, who fills out upon a prepared form, covering one page of the Record, a patent, giving it its number, which number is likewise carried to the file, and by which number the file, drawings, and patent are thereafter known.

This patent is prepared complete, with the exception of the signatures of the Secretary of the Interior and Commissioner of Patents, which are added thereto after the patent is signed.

This being done, the file is sent to the draftsman's division, that its drawing may be selected, numbered, and sent to the photolithographer. The file is then returned to the issue division, to be forwarded to the Government Printer. The files and drawings are sent out simultaneously, one to the Public Printer, the other to the photolithographer.

While the files are at the Printing Office, a list of the cases is prepared and sent to the assignment division, that the record of assignments may be searched. To insure the issuance of the patent to the proper party, indexes are prepared from the record upon index cards, and a transcript of the record of the patent, known as the patent head, is finely engrossed upon parchment paper to be ready for the printed matter when it arrives.

After the specifications have been put in type and proof-read at the Printing Office, the proofs are returned to this office, with the files, for another (technical) proof-reading, to insure an accurate printing of the specification and claims in the exact form and language in which the examiner intended to allow the case, to receive any cor-

rection in the names of the grantees, or any limitation in term, by reason of new information with regard to foreign patents.

The files are then retained here and the revised proof returned to the Printing Office, from which 150 copies of each specification, with its claims, are printed, one of which is upon bond paper, to form a part of the patent as issued. (Section 4834, R. S.)

The claims are re-set in larger type (English), and copies thereof are furnished for the preparation of the dummy cards for the Official Gazette.

Upon the delivery of the printed copies of the specifications, the bond copy, together with a copy of the drawing, which has meantime been photo-lithographed, and the patent head, spoken of above, are all attached together with ribbon and seal, presented to the Commissioner of Patents to be countersigned, to the Secretary of the Interior to be signed, and are then delivered to the attorney or the patentee. The record is now completed by entering the signatures of the Secretary and Commissioner therein from the patents. Many comparisons are made throughout the progress of the work on each patent to secure accuracy in every detail. Patents are signed and issued only on Tuesday of each week, and the Official Gazette, containing the illustrations, claims, and lists, issues simultaneously. The time allowed for the performance of all this work in the preparation of the patent, from the time of the payment of the final fee to the delivery of the patent is but seventeen days. (See Rule 213, Rules of Practice, U. S. Patent Office.) With an issue of over 400 patents weekly, the division has an average of over 1,000 patents in hand daily in various stages of preparation.

After the issuance of the patents, the (now) patented files are turned over to the division having charge of such files, and they are open to the inspection of the public.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending and undisposed of, at the dates specified below, in the issue and Gazette division of the United States Patent Office, Department of the Interior :

Character of business.	Received during 1884.	Disposed of in 1884.	Received during 1885.	Disposed of in 1885.	Received during 1886.	Disposed of in 1886.	Received during 1887.	Disposed of in 1887.
Cases revised.....	26,071	26,071	30,717	30,717	27,053	27,053	4,189	4,189
Final fees applied and entered....	18,836	18,836	23,733	23,733	21,740	21,740	3,202	3,262
Patentees and assignees registered..	28,948	28,948	34,673	34,673	33,024	33,024	4,012	4,012
Trade-marks registered.....	1,021	1,021	1,067	1,067	1,029	1,029	169	169
Labels registered.....	513	513	391	391	378	378	59	59
Patents recorded.....	21,947	21,947	25,681	25,681	23,915	23,915	3,473	3,473
Certificates of registration recorded	1,534	1,534	1,458	1,458	1,407	1,407	226	226
Cases certified to assignment division.....	20,529	20,529	24,104	24,104	22,392	22,392	3,247	3,247
Pages of proof read.....	24,792	24,792	31,900	31,000	30,921	30,921	.....	.....
Patent heads prepared, including trade-marks and labels.....	21,947	21,947	25,681	25,681	23,915	23,915	3,473	3,473
Patents sealed, signed, and mailed..	20,413	20,413	24,233	24,233	22,508	22,508	3,247	3,247
Number of Official Gazette issued..	331,500	331,500	338,000	338,000	338,000	338,000	26,000	26,000
Dummy cards for Official Gazette prepared.....	4,574	4,574	5,956	5,956	5,662	5,662	840	840
Pages of decisions, &c., prepared..	368	368	372	372	360	360	56	56
Subscribers to Official Gazette supplied weekly.....	*2,153	*2,153	*2,173	*2,173	*2,264	*2,264	*3,825	*3,825
Miscellaneous orders for Official Gazette and other publications received and filled.....	6,211	6,211	4,824	4,824	4,560	4,560	784	784
Public libraries supplied with Official Gazette.....	*3,196	*3,196	*3,238	*3,238	*3,318	*3,318	*3,223	*3,223
Number of Official Gazette mailed..	276,794	276,794	276,514	276,514	283,815	283,815	41,467	41,467
Index cards prepared.....	57,896	57,896	69,326	69,326	66,448	66,448	8,378	8,378
Volumes, specifications, and drawings published.....	2,400	2,400	2,400	2,400	2,400	2,400	400	400
Requisitions for printing and binding made.....	504	504	580	582	437	437	68	68
Letters received, exclusive of final fees.....	8,197	8,197	8,219	8,219	7,923	7,923	2,147	2,147
Letters written, exclusive of circulars.....	1,313	1,313	1,279	1,279	1,194	1,194	132	132
Notices of allowance issued.....	26,071	26,071	30,717	30,717	27,053	27,053	4,189	4,189
Cases forfeited.....	2,784	2,784	3,426	3,426	3,311	3,311	541	541

* Maximum.

The following statement shows the average amount and character of business performed, transacted, and disposed of, during the periods specified, by the employés in the issue and Gazette division of the United States Patent Office, Department of the Interior:

1884.

Character of business.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Cases revised.....	2,175	1,986	2,504	2,769	2,325	2,554	2,176	1,873	2,086	2,005	1,623	1,995
Patentees and assignees registered.....	2,783	2,616	2,475	3,138	2,254	2,369	2,696	2,306	2,029	2,058	1,912	2,452
Final fees applied and entered.....	1,755	1,558	1,705	1,687	1,872	1,536	1,642	1,516	1,375	1,496	1,186	1,509
Trademarks registered..	87	60	79	105	58	75	86	84	87	54	125	122
Labels registered.....	77	78	73	93	21	26	35	21	20	20	23	27
Certificates of registration recorded.....	164	138	152	198	79	101	121	105	107	74	148	149
Cases certified to assignment division.....	1,364	1,800	1,637	2,128	1,588	1,652	1,880	1,599	1,808	1,454	1,246	1,668
Pages of proof read.....	2,274	2,039	1,984	2,617	1,920	2,021	2,339	1,822	2,292	1,847	1,551	2,086
Patent-heads prepared, including trade-marks and labels.....	1,541	1,949	1,796	2,338	1,676	1,767	2,009	1,721	1,924	1,537	1,394	1,827
Patents sealed, signed, and mailed.....	1,377	1,811	1,644	2,140	1,597	1,666	1,888	1,616	1,817	1,463	1,246	1,678
Official Gazettes issued..	30,000	24,000	24,000	30,000	24,000	24,000	32,500	26,000	32,500	26,000	26,000	32,500
Dummy cards for Official Gazette prepared.....	404	360	354	492	364	372	424	332	432	342	304	394
Pages of decisions, &c., prepared.....	34	26	30	32	28	32	30	28	30	30	26	42
Subscribers to Official Gazette supplied weekly.....	1,655	1,811	1,944	2,029	2,100	2,146	2,022	2,067	2,097	2,108	2,141	2,153
Miscellaneous orders for Official Gazette and other publications filled.....	831	538	674	503	531	431	499	441	365	563	332	503
Public libraries supplied with Official Gazette...	3,092	3,152	3,183	3,196	3,137	3,138	3,079	3,080	3,077	3,091	3,087	3,088
Official Gazettes mailed..	24,309	20,254	21,009	26,522	21,395	21,443	25,862	20,880	26,199	21,214	21,135	26,582
Index cards prepared...	5,566	5,232	4,950	6,276	4,508	4,738	5,392	4,612	4,058	4,116	3,824	4,904
Volumes, specifications, and drawings published.....	200	200	200	200	200	200	200	200	200	200	200	200
Requisitions for printing and binding made.....	43	35	47	30	36	26	88	37	41	43	44	34
Letters received, exclusive of final fees.....	1,652	858	724	681	618	567	673	441	494	476	399	614
Letters written, exclusive of circulars.....	123	126	111	150	129	114	114	79	100	72	100	95
Notices of allowances issued.....	2,175	1,986	2,504	2,769	2,325	2,554	2,176	1,873	2,086	2,005	1,623	1,995
Cases forfeited.....	235	247	196	224	220	189	162	206	257	276	321	251
Patents, &c., recorded...	1,541	1,949	1,796	2,338	1,676	1,767	2,009	1,721	1,924	1,537	1,394	1,827

1885.

Cases revised.....	2,460	2,172	2,852	3,449	3,001	3,040	2,308	2,141	2,514	2,372	2,126	2,280
Patents and assignees registered.....	1,959	2,485	2,992	2,933	2,923	3,578	2,888	2,693	3,344	2,858	2,724	3,286
Final fees applied and entered.....	1,651	1,596	1,879	2,310	2,045	2,084	2,256	1,821	2,045	2,226	1,858	1,964
Trade-marks registered..	48	91	89	128	78	100	77	84	76	109	87	100
Labels registered.....	23	35	39	39	23	34	38	30	24	27	31	48
Certificates of registration recorded.....	171	126	128	167	101	134	115	114	100	136	118	148
Cases certified to assignment division.....	1,375	1,706	2,080	1,993	2,058	2,505	2,015	1,872	2,373	1,967	1,882	2,258
Pages of proof read.....	1,749	2,155	2,658	2,726	2,701	3,320	2,711	2,484	3,082	2,628	2,472	3,214
Patent-heads prepared, including trade-marks and labels.....	1,553	1,843	2,219	2,175	2,171	2,654	2,142	1,997	2,480	2,110	2,010	2,417
Patents sealed, signed, and mailed.....	1,382	1,717	2,091	2,008	2,070	2,520	2,027	1,883	2,380	1,974	1,892	2,269
Official Gazettes issued..	26,000	26,000	32,500	26,000	26,000	32,500	26,000	26,000	32,500	26,000	26,000	32,500
Dummy cards for Official Gazette prepared.....	322	400	490	494	496	610	594	466	564	478	472	570

1885—Continued.

Character of business.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Pages of decisions, &c., prepared	24	30	60	34	30	34	24	26	30	24	24	32
Subscribers to Official Gazette supplied weekly	1,679	1,843	1,960	1,955	2,021	2,080	1,982	2,039	2,091	2,098	2,154	2,173
Miscellaneous orders for Official Gazette and other publications filed	584	467	605	392	349	360	223	343	344	444	370	403
Public libraries supplied with Official Gazette ..	3,238	3,229	3,238	3,238	3,230	3,235	3,227	3,212	3,206	3,193	3,197	3,183
Official Gazettes mailed ..	19,952	20,695	26,595	21,164	21,353	26,935	21,059	21,347	26,829	21,628	21,774	27,183
Index cards prepared	3,918	4,970	5,984	5,866	5,846	7,156	5,776	5,386	6,688	5,716	5,448	6,572
Volumes, specifications, and drawings published	200	200	200	200	200	200	200	200	200	200	200	200
Requisitions for printing and binding made	55	37	109	60	37	40	40	40	47	49	36	32
Letters received, exclusive of final fees	1,596	764	764	673	563	513	677	538	509	551	423	648
Letters written, exclusive of circulars	144	118	146	117	104	122	78	77	101	86	87	99
Notices of allowance issued	2,460	2,172	2,852	3,449	3,001	3,042	2,308	2,141	2,514	2,272	2,126	2,280
Cases forfeited	252	230	203	187	203	251	288	240	466	400	354	349
Patents, &c., recorded ...	1,553	1,843	2,219	2,175	2,171	2,654	2,142	1,997	2,480	2,110	2,010	2,417

1886.

Cases revised	2,305	2,180	2,635	2,618	2,095	2,552	2,461	1,964	2,057	2,021	2,061	2,102
Pa'tentes and assignees registered	2,376	2,684	3,313	2,820	2,716	3,451	2,475	3,145	2,297	2,429	2,867	2,451
Final fees applied and entered	1,843	1,717	2,018	2,032	1,687	1,865	1,945	1,585	1,934	1,599	1,668	1,845
Trade-marks registered ..	68	82	91	105	95	124	67	107	62	67	69	92
Labels registered	18	30	37	31	36	37	29	34	21	30	39	26
Certificates of registration recorded	86	112	128	136	131	161	96	141	83	97	108	118
Cases certified to assignment division	1,650	1,840	2,287	1,907	1,846	2,083	1,707	2,153	1,590	1,677	1,971	1,671
Pages of proof read	2,292	2,566	3,094	2,661	2,525	2,871	2,376	2,941	2,148	2,383	2,734	2,380
Patents-heads prepared, including trade-marks and labels	1,740	1,966	2,466	2,055	1,989	2,257	1,813	2,303	1,683	1,779	2,090	1,795
Patents sealed signed, and mailed	1,654	1,854	2,298	1,919	1,858	2,096	1,717	2,162	1,600	1,682	1,982	1,677
Official Gazettes issued ..	26,000	26,000	32,500	26,000	26,000	32,500	26,000	32,500	26,000	26,000	32,500	26,000
Dummy cards for Official Gazette prepared	412	462	556	476	470	526	430	552	404	430	512	442
Pages of decisions, &c., prepared	28	26	30	26	30	34	28	36	28	26	36	34
Subscribers to Official Gazette supplied weekly	1,796	1,971	2,085	2,109	2,167	2,198	2,118	2,177	2,224	2,205	2,247	2,264
Miscellaneous orders for Official Gazette and other publications filed ..	376	427	484	493	585	379	415	226	402	297	226	244
Public libraries supplied with Official Gazette ..	3,261	3,309	3,818	3,295	3,288	3,264	3,257	3,156	3,148	3,132	3,127	3,122
Official Gazettes mailed ..	20,503	23,357	27,237	21,467	22,405	27,633	21,915	27,041	21,896	21,685	27,076	21,544
Index cards prepared	4,752	5,368	6,626	5,640	5,432	6,902	4,950	6,290	4,994	4,858	5,734	4,902
Volumes, specifications, and drawings published	200	200	200	200	200	200	200	200	200	200	200	200
Requisitions for printing and binding made	31	39	24	35	21	43	65	25	28	43	53	30
Letters received, exclusive of final fees	1,684	679	668	668	501	534	636	433	437	521	469	693
Letters written, exclusive of circulars	125	104	131	146	106	96	92	111	64	77	67	75
Notices of allowance issued	2,307	2,180	2,635	2,618	2,095	2,552	2,461	1,964	2,057	2,021	2,061	2,102
Cases forfeited	299	295	305	280	236	249	248	269	318	256	249	307
Patents, &c., recorded ...	1,740	1,966	2,466	2,055	1,989	2,257	1,813	2,303	1,683	1,779	2,090	1,795

1887.

Character of business.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Cases revised.....	2,205	1,984										
Patents and assignees registered.....	1,820	2,192										
Final fees applied and entered.....	1,671	1,591										
Trademarks registered.....	73	94										
Labels registered.....	28	31										
Certificates of registration recorded.....	101	125										
Cases certified to assignment division.....	1,489	1,758										
Pages of proof read.....	2,061	2,416										
Patent-heads prepared, including trade-marks and labels.....	1,590	1,883										
Patents sealed, signed, and mailed.....	1,489	1,758										
Officials Gazettes issued.....	26,000	26,000										
Dummy cards for Official Gazette prepared.....	394	452										
Pages of decisions, &c., prepared.....	28	28										
Subscribers to Official Gazette supplied weekly.....	1,845	1,980										
Miscellaneous orders for Official Gazette and other publications filled.....	473	311										
Public libraries supplied with Official Gazette.....	3,206	3,223										
Official Gazettes mailed.....	20,409	21,058										
Index cards prepared.....	4,410	3,968										
Volumes, specifications, and drawings published.....	200	200										
Requisitions for printing and binding made.....	30	38										
Letters received, exclusive of final fees.....	1,581	566										
Letters written, exclusive of circulars.....	75	57										
Notices of allowance issued.....	2,205	1,984										
Cases forfeited.....	326	215										
Patents, &c., recorded.....	1,590	1,883										

The following statement shows the average number of employés in the issue and Gazette division of the Patent Office, Department of the Interior, during the periods specified :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	45	45	44	45	45	45	45	47	48	46	46	45
1885.....	43	43	44	44	44	44	43	43	42	45	44	42
1886.....	42	43	43	44	43	43	43	46	47	46	46	46
1887 (to March 1).....	48	47										

The work in this division is of so varied a character that, with the exception of the proof-readers, of whom there are from six to eight, not more than two persons are engaged in like duties. It is therefore manifestly impossible to rate their efficiency in the comparative form desired.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the issue and Gazette division of the Patent Office, Department of the Interior:

Year.	Average No. of employés.	Average No. of days present.	Average No. of hours employed daily.	No. by proxy.
1884.....	45	260	7	None.
1885.....	43	266	7	None.
1886.....	44	266	7	None.
1887 (to March 1).....	47	43	7	None.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the mail room division of the United States Patent Office, Department of the Interior :

Year.	Average No. of employés.	Average No. of days present.	Average No. of hours employed daily.
1884	5	275 $\frac{2}{3}$	7
1885	5	273 $\frac{2}{3}$	7
1886	5	256 $\frac{2}{3}$	7
1887 (to March 1).....	5	45 $\frac{2}{3}$	7

The following statement shows the maximum number of days devoted to business by the employé present for the greatest number of days, and also the minimum number of days devoted to business by the employé present for the least number of days, in the mail room division of the United States Patent Office, Department of the Interior, during the periods specified.

	1884.	1885.	1886.	1887 (to Mar. 1).
Maximum number of days.....	276	272	289	48
Minimum number of days	122	67	88	41

MODEL HALL.

Report of the model hall, Patent Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

The following statement shows the average number of employés during each month of the following years :

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	17 $\frac{10}{13}$	16 $\frac{5}{54}$	16	16	14	14	14	14 $\frac{12}{3}$	15 $\frac{11}{13}$	14 $\frac{3}{9}$	15 $\frac{8}{8}$	16 $\frac{8}{55}$
1885.....	16 $\frac{2}{33}$	16 $\frac{6}{11}$	15 $\frac{1}{6}$	15	15 $\frac{16}{26}$	16	15 $\frac{47}{32}$	17	17 $\frac{21}{26}$	16 $\frac{11}{27}$	17 $\frac{7}{24}$	17 $\frac{33}{56}$
1886.....	17 $\frac{33}{55}$	16 $\frac{9}{23}$	15 $\frac{4}{7}$	15	14	13 $\frac{10}{13}$	12 $\frac{7}{13}$	12	12	12	12	11 $\frac{24}{25}$
1887 (to March 1)	12	11 $\frac{20}{23}$	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

A record of the amount of business transacted and disposed of by the employé doing the most, and the employé doing the least, during each month of the years named, has not been required, and the character of the work in the model halls is such that an itemized record would not have expressed the real value of the work performed by the individual.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the years named, also the number of days devoted to business by the employé present for the greatest number of days and employé present for the least number of days :

Year.	Average No. of days.	Hours daily.	In person or by proxy.	Maximum No. of days.	Minimum No. of days.
1884	203 $\frac{1}{2}$	7	In person...	287 $\frac{11}{14}$	258 $\frac{5}{11}$
1885	187 $\frac{31}{48}$	7	In person...	285 $\frac{13}{14}$	256 $\frac{11}{14}$
1886	170 $\frac{21}{41}$	7	In person...	285 $\frac{13}{14}$	258 $\frac{4}{14}$
1887 (to March 1).....	44 $\frac{31}{108}$	7	In person...	48	28 $\frac{7}{14}$

The following statement shows the amount of business transacted and disposed of by the employé doing the most and the employé doing the least during each month of the years named:

MAXIMUM.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	5	4	4	5	4	4	5	4	5	4	4	5
1885.....	4	4	5	4	4	5	4	4	5	4	4	5
1886.....	4	4	5	4	4	5	4	5	5	4	5	4
1887 (to March 1)	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MINIMUM.

1884.....	5	4	4	5	4	4	5	4	5	4	4	5
1885.....	4	4	5	4	4	5	4	4	4	4	4	5
1886.....	4	4	5	4	4	5	4	5	5	4	5	4
1887 (to March 1)	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Engaged on indices and copying the same.

From September, 1886, to November, 1886, charge of the books.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the following years:

Year.	Average No. of days.	Hours daily.	In person or by proxy.
1884	307	6½	6 by proxy.
1885	302½	6½	30 by proxy.
1886	299	6½	15½ by proxy.
1887 (to March 1)	47	6½	In person.

Statement showing the principal items of business transacted in the record room division of the United States Patent Office.

Keeping an index of the weekly issue, keeping an account of the books taken out and returned by the examining and other divisions of the office, and assisting attorneys and others who request it.

Statement of the record room division of the United States Patent Office, showing the methods adopted in transacting the principal business matters, beginning with the receipt of the matter by the Department or by any of the agents of the Department, and giving in consecutive order the various steps taken by each of such business matters through the various divisions of the office and the various Bureaus and divisions of such Bureaus, and employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each until the same is finally disposed of and notice thereof duly given to the proper party.

Copying in a book, provided for the purpose, the names of the persons to whom patents were issued on each issue day.

The following statement shows the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates specified below, in the division of record room, in the office of Commissioner of Patents:

Issues during 1886	53
Issues disposed of in 1886.....	53

Indexing the issue, keeping an account of the books borrowed and returned by the different divisions, and rendering assistance to attorneys and others who request it.

SCIENTIFIC LIBRARY.

Report of the scientific library division, United States Patent Office, on the methods of business and work, as requested by Senate Select Committee and called for by Department circular of March 23, 1887.

Statement showing the principle items of business transacted in the scientific library of the Patent Office.

First: Purchase of books for use of library and for the several divisions of the Patent Office.

Second: Purchase by subscription of scientific periodicals and preparation of the last named for binding.

Third: Translation of foreign languages for Patent Office and Bureaus of the Interior Department.

Fourth: Indexing of foreign patents and important books of reference of a scientific nature.

Fifth: Alphabetizing of index cards for catalogue purposes.

Sixth: Cataloguing of books purchased.

Seventh: Examination of printed catalogues for the purchase of books.

Eighth: Preparation of vouchers and keeping account of expenditures for library.

Ninth: Attendance on all who make use of the library for its proper purposes, that is examiners and other employes of the Patent Office, as well as attorneys, applicants for patents, and all who consult the library in connection with patent business, persons engaged in scientific research, especially in connection with other Departments of the Government, and last, but not least, the general public in any research that brings them into the library. All classes named are on the increase.

The following statement shows the average number of employes during each month of the following years:

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	7	7	6	6	6	6	7	8	8	8	8	8
1885.....	8	8	8	7	7	7	8	9	8	9	8	8
1886.....	8	8	10	10	10	9	13	11	13	13	12	13
1887 (to March 1).....	14	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The work performed in the scientific library of the Patent Office is of a peculiar and technical nature, as is demonstrated in Exhibit B. There is no accurate data to found the statement required upon. The force for the past eighteen months, or during the incumbency of the present librarian, has not been a permanent one, which, added to the nature of the business transacted, makes it impossible to render an accurate statement.

The following statement shows the average number of days and the time and attention devoted to the consideration and transaction of business during the years named, also the number of days devoted to business by the employe present for the greatest number of days and employe present for the least number of days:

Year.	Average No. of days.	Hours daily.	Maximum No. of days.	Minimum No. of days.
1884.....	225 $\frac{1}{7}$	6 $\frac{1}{2}$	263	20
1885.....	237 $\frac{3}{8}$	6 $\frac{1}{2}$	277	1
1886.....	237 $\frac{2}{1}$	6 $\frac{1}{2}$	276	17
1887 (to March 1).....	45 $\frac{1}{2}$	6 $\frac{1}{2}$	48	16

THE U. S. GEOLOGICAL SURVEY.

DEPARTMENT OF THE INTERIOR,
Washington, August 25, 1887.

SIR: In further compliance with the request contained in your communication of the 13th March, ultimo, I have the honor to transmit herewith the report of the Director of the Geological Survey on the "methods of business and work" in the several divisions of his office.

Very respectfully,

Hon. F. M. COCKRELL,

Chairman Senate Select Committee on the Executive Departments.

H. L. MULDROW,
Acting Secretary.

DEPARTMENT OF THE INTERIOR,
U. S. GEOLOGICAL SURVEY,
Washington, D. C., August 23, 1887.

SIR: I have the honor to transmit herewith a statement of the organization, business methods, and work of the United States Geological Survey, prepared in response to your circular of March 23, 1887, transmitting communications from Hon. F. M. Cockrell, chairman Senate Select Committee.

It has been my aim to render the statement as thorough as possible, and I trust it may be found to meet all requirements.

I have the honor to be, with great respect, your obedient servant,

J. W. POWELL,
Director.

The honorable the SECRETARY OF THE INTERIOR.

Statement of the organization, business methods, and work of the United States Geological Survey, by J. W. Powell, Director.

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LIST OF EXHIBITS.

- Notice (face and reverse).
 Requisition for funds.
 Bond (face and reverse).
 Affidavit of surcty.
 Order for purchase (with stub).
 Salary voucher (face and reverse).
 Pay-roll (face and reverse).
 Traveling expense voucher (face, blank leaf, and reverse).
 Letter of instructions.
 Journey order (with stub).
 Sub-voucher (face and reverse).
 Purchase voucher (face and reverse).
 Transportation request, coupon acknowledgment, certificate of Director, and stub.
 Transportation voucher (face and reverse).
 Request for bills of lading.
 Shipping label (face and reverse).
 Notice of shipment—postal card (face and reverse).
 Receipt for shipment—postal card (face and reverse).
 Ledger, allotment book, voucher record, bonded railroad accounts, record of transportation requests, classification of expenditures.
 Weekly report.
 Weekly abstract.
 Abstract of disbursements (face and reverse).
 Account-current.
 Quarterly abstract.
 Letter transmitting check.
 Letter transmitting account.
 Salary receipt.
 Salary envelope.
 Invoice of property.
 Receipt for property.
 Property return.
 Property book.
 Record of property received.
 Record of property shipped.
 Notice of receipt of property.
 Receipt for field instruments.
 Report of inspecting officer (with reverse).
 Notice of auction sale (face and reverse).
 Affidavit of loss of property.
 General monthly report.
 Rations account.
 Field labels.
 Requisition for photographs.
 Proof stamps.
 Editor's account with Public Printer.
 Notice to authors.
 Record of illustrations.
 Publications of the Survey.
 Record of documents.
 Requisition for photographs.
 Document ledger.
 Day-book.
 Address slips.
 Document check list.
 Document charge cards.
 Requisition for documents.
 Letters of transmittal.
 Receipt for documents.
- Envelope for receipt.
 Letter used in Smithsonian Exchange.
 Receipt used in Smithsonian Exchange.
 Weight book.
 Registration record.
 Request for free entry.
 Accessions catalogue.
 Book label.
 Catalogue of periodicals.
 Directions for binding.
 Requisition for binding.
 Letter to Government binder.
 Letter to stationery clerk.
 Requisition for map-mounting.
 Map catalogue.
 Catalogue card.
 Library call card.
 Library account card.
 Request to Library of Congress.
 Notice to return books.
 Notice of return of books.
 Receipt for return of books.
 General stationery requisition.
 Special stationery requisition.
 Earthquake record.
 Record of minerals, etc.
 Labels for record books.
 Weekly report.
 Transit record.
 Geodetic record.
 Report of analysis.
 Book for computation of triangles.
 Book for computation of geodetic distances.
 Book for computation of latitudes, longitudes, and azimuths.
 Book for computation of barometric altitudes.
 Book for computation of geodetic co-ordinates.
 Book for topographic records.
 Book of township plats, for topographic notes.
 Book for meteorological records.
 Book for transit records.
 Book of record of latitudes.
 Book for record of base measurements.
 Book for itinrary meteorological records.
 Stationery requisition.
 Letter index card.
 Book of letters received.
 Book of letters sent.
 Library correspondence card.
 Letters used in library correspondence.
 Request for monthly report.
 Request for excuse from duty.
 Request for leave of absence.
 Notice of granting leave of absence.
 Weekly time report.
 Report of absences.
 Monthly report of absentees.
 Record of employes.
 Requisition for photographic supplies.
 Requisition upon petregraphic laboratory.
 Requisition upon mechanician.
 Pass card.
 Introduction.
 Monthly report.

THE ORGANIZATION, BUSINESS METHODS, AND WORK OF THE UNITED STATES GEOLOGICAL SURVEY.

INTRODUCTORY REMARKS.

The business methods and operations of the Geological Survey are determined by its scientific methods and operations, and cannot be intelligently set forth without somewhat extended statement of the organization of the Bureau.

The Geological Survey was organized with Mr. Clarence King as Director in March, 1879. In March, 1881, Mr. King resigned and the present Director was appointed. From its first organization to the present time the Survey has steadily grown, as Congress has enlarged its functions and increased its appropriations. During this time the scientific organization has gradually developed, as has been set forth in the official reports published annually.

The organization, objects, and methods of the geographic division were briefly described in the fourth annual report of the Survey, and were set forth in greater detail in the sixth annual report. The organization, objects, and methods of the geologic division were also set forth in the sixth report, but in general terms only. In the seventh annual report certain methods of the geographic division were described, and the organization of the geologic and accessory divisions was set forth at some length. Under an act of July 7, 1884, a joint commission was created to consider the organization of certain scientific bureaus of the Government, and in the volume of testimony published by that commission the business operations of the Geological Survey are in part set forth; but this partial presentation was unsystematic, the facts recorded being elicited in irregular order by interrogatories arising in the course of a long investigation. In the eighth annual report of the Geological Survey, just prepared for the press, the general plan of the Survey and the relations between the scientific and business branches are set forth, and the business organization and methods are described at some length.

The present statement is based as far as practicable upon the official reports of the Survey and the volume of testimony above referred to. The account of the general plan of the Survey is extracted from the report last mentioned. The description of the scientific organization is extracted from the sixth and seventh annual reports, and the description of the business organization, which is based on the testimony before the Congressional commission, is extracted from the last, but is supplemented by the addition of the blank forms used in the transaction of the business of the Survey, together with descriptions thereof; and the whole is arranged in logical order, and so expanded and modified as to bring the entire statement up to date.

THE GENERAL PLAN OF THE SURVEY.

The function of the Geological Survey, as defined by its organic law, is "the geological survey and the classification of the public lands, and examination of the geological structure, mineral resources, and products of the national domain, and to continue the preparation of a geological map of the United States;" and this involves original research in many distinct lines, all intimately related, and together covering a considerable field. For the prosecution of these researches in a systematic manner there have been organized in the Survey, as set forth in earlier reports, a number of scientific divisions—a division of geography, several divisions of geology and paleontology, a division of chemistry and physics, a division of forestry, a division of statistics, &c.

In this connection certain characters of geologic surveys should be considered.

In the prosecution of a land-parceling survey, it is generally the case that the plan of the work is developed in all its details before the survey is initiated; and the work is thus one of applied science, in which no original research is required, and a fair degree of training, intelligence, mechanical skill, and experience in the work suffices for its satisfactory prosecution. In cadastral surveys, also, the plan is generally completed before the work is begun, and the prosecution of the survey is therefore a work of applied science; but intelligence and judgment are frequently required in its execution.

The work of making a topographic survey is largely one of applied science after the plan is developed. But in the prosecution of a complete topographic survey of a state or country upon a large scale, a great variety of features must be recognized, and conventions suitable for representing them upon the plane surface of the map must be selected or invented; these conventions have to be modified with the local variation in topographic configuration, amount of culture, &c., in different parts of the area; and it has been found by experience that artistic skill, ingenuity, and ere-

ative ability on the part of the topographic surveyor are essential to the best work. Thus an elaborate topographic survey comes to involve not only such mechanical skill and experience as are required in the land-parceling survey, but also originality, intelligence, and judgment of a high order.

From the nature of the work, a geologic survey of a State or country cannot be made in accordance with definite plans formulated in advance; for such a survey involves the discrimination and classification of widely diverse and sometimes obscure phenomena in accordance with principles which have to be developed as the work progresses. The work of a geologic survey therefore requires originality, intelligence, and judgment of the highest order, as well as special training and long experience. The geologist must be a student, and must keep himself familiar with the writings of other students in various languages; in order to do the best work he must be familiar with the progress of science in its various branches; and he must be particularly well informed concerning the development of geologic science in all portions of the globe. He must also possess sufficient literary and artistic skill to intelligibly set forth the results of his investigations both verbally and graphically; and a large part of his work must be original and creative.

In the Geological Survey it is recognized that talents of a high order must be secured to prosecute the surveys and researches which it is its function to perform, and that every geologist must be an author, actual or prospective.

This important difference between surveys involving only applied science and those involving original research cannot be too strongly emphasized: in the one case the process is one of application of known principles, and nothing is added to general human knowledge or to intellectual progress; while in the other case the process is one of the evolution of principles themselves, in which every cycle multiplies human knowledge. There is set before the surveyor by applied science a definite task, and a definite time is allowed in which to accomplish it; all of the conditions and elements are known: the factors and the result are alike susceptible of quantitative measurement; and by the appointed time, if the estimate has been carefully made, the task is completed. The surveyor whose methods involve original research, on the other hand, sees but dimly the task laid before him; the conditions and elements are unknown; neither the factors nor the results may be quantitatively measured; and while the end of a specified period of work may bring tangible results—in the shape of final geologic coloring of a certain area upon the map, in the shape of the discovery and definition of important mineral deposits, or in the shape of new principles affecting materially the industries related to his field of work,—it may bring nothing more than new problems which must be solved before the practical results of his labors can be attained.

The scientific work of the Geological Survey is in part topographic and in part geologic. The topographic work, together with that performed in certain of the accessory divisions of the Survey, is, at least in a measure, work of applied science, and thus capable of prosecution in accordance with prearranged plans, but it is in part original and creative; while the geologic work is almost wholly original and creative, involving in only a minor degree the application of known principles, and cannot therefore be definitely prearranged. The principal work of the Survey is geologic; its plans are modified from time to time with its progress and with the growth of geologic science; and there is concurrent modification of the work of the accessory divisions.

There is a third class of work performed in the Survey. In the various scientific divisions money is necessarily expended for salaries, traveling expenses, wages of temporary assistants, field subsistence, and for other purposes; and it has been necessary to devise a comprehensive system of regulating and accounting for these expenditures, and to organize a clerical and accounting force for that purpose. Moreover, property is acquired by the Survey from time to time in the form of instruments, animals and vehicles, camp equipage, stationery, laboratory apparatus and materials, office equipments, &c. This property is of exceedingly diverse character, is generally of only limited value in any particular locality, and is acquired and held in all parts of the country; and it has been necessary to devise a comprehensive plan for regulating the custody and use of such property. Again, property required in the prosecution of the work of the Survey is produced in the form of maps, sketches, photographs, manuscripts, collection of minerals, fossils, &c.; and the custody, use, and disposition of such property also require regulation. Finally, the published maps and printed reports, &c., produced by the Survey constitute property, the disposition of which is regulated by law; and it has been necessary to provide for the distribution of this property to the public in accordance with law, and to organize a force for that purpose.

To meet these various requirements there has been developed within the Geological Survey a general plan for the conduct of its business affairs, comprehending (1) a fiscal system, (2) a custodial system, (3) a museum system, (4) an illustration system, (5) an editorial system, (6) a document system, (7) a library system, (8) a station-

ery system, and (9) a correspondence system by which the administration of the Survey is extended and supplemented.

The organization in this branch of the Survey is necessarily less complete than the differentiation of function. There is a definitely organized division of disbursements and accounts, but all business transacted in this division is carried on under the immediate and constant supervision of the Director, and the division is thus a part of the executive machinery of the Survey; and moreover, there are several disbursing agents not immediately connected with this division, most of whom are geologists or topographers. In the same division there is an officer who is the general custodian of the public property in the possession of the Survey, and accounts for all such property not specifically charged to the other custodians, most of whom are heads of scientific divisions and their assistants. There is a publication division, by which the distribution of the publications of the Survey is effected, in which the custody of the library is vested, and by which that part of the correspondence of the Survey relating to publications and to the purchase and exchange of books, maps, &c., is carried on. There is also a division of illustrations, which has charge of the drawings, sketches, photographs, and photographic apparatus and materials, and by which the illustrations (other than maps) required for the publications of the Survey are prepared; but the collection and elaboration of the materials for maps, the preparation of this material for the engraver, and the revision of map proofs, &c., are performed in the division of geography, in which the custody of map material is vested. There is an editorial and miscellaneous division, in which the manuscripts designed for publication by the Survey are put in condition for the press; the proofs revised, &c.; and the general correspondence of the office is in charge of this division. Property acquired and produced by the Survey in the form of collections, minerals, fossils, &c., remains in the custody of the division by which the material is acquired or produced until its investigation is completed, when it is transferred to the National Museum, generally through the petrographic division; the chemie division, or the paleontologic divisions, the heads of which are honorary curators of the Museum.

There is thus a combination of functions running through not only the non-scientific branch of the Survey but extending also to the scientific divisions; and in so far as is practicable without loss of efficiency on the part of the heads of the different scientific divisions, it is the policy of the Survey to charge them with the disbursement of funds in their divisions and with the custody of the property used, acquired, and produced therein. This arrangement has been found expedient, partly because it is economic and partly because it tends to promote harmony and unity throughout the organization by keeping the different officers of the Survey familiar with the operations of divisions other than their own.

Thus the operations of the Geological Survey belong to three branches, in each of which the grade of work is distinct. The principal branch of work is original research, or work of pure science, which cannot be antecedently planned except in general terms, and in which the results are seldom susceptible of quantitative measurement. There is a collateral branch of work—that involved in the topographic survey—growing out of the want of maps of the country suitable for geologic purposes, which is partly a work of applied science, but in which originality and creative ability are involved in large measure. And there is a third branch of the work of the Survey, depending upon the others and modified by their requirements from time to time, comprehending its business operations, which occupies the same plane as that of commercial and financial institutions and administrative departments generally, in which the work may be antecedently planned and systematically controlled at every stage, and in which the results are susceptible of quantitative measurement in commonly recognized units.

THE SCIENTIFIC ORGANIZATION.

THE GEOGRAPHIC DIVISION AND ITS WORK.

At the time the Geological Survey was organized the field geologist found within his reach maps of very few portions of the country that he could utilize in delineating geologic phenomena; accordingly, as has been fully set forth in different reports, recourse was had to existing statutory authority for the organization of a geographic division. The chief functions of this division are: First, the prosecution of a topographic survey of the entire country; second, the preparation of topographic maps thereof, on such scales as are required for the accurate delineation of geologic structure; and, third, geodetic co-ordination of the topographic surveys in such manner that when they are completed and the topographic maps are combined they will constitute an accurate geographic map of the entire country, showing, with a good degree of exactness, its extent; its relations to contiguous countries; the boundaries of

states, counties, &c. ; the positions on the earth's surface of cities, towns, railways, highways, and other public cultural features; the creeks, rivers, lakes, coast lines, and other hydrographic features; and the mountains, hills, valleys, cañons, plains, and other hypsographic features.

In the establishment of the plan for the topographic surveys and maps, the following considerations have had chief control:

(1) The area of the United States is very great, being about three million square miles, exclusive of Alaska, and no nation has yet undertaken to execute a work of this character over a region of such magnitude. It has therefore been deemed of prime importance that the survey should be conducted with the utmost regard to economy.

(2) The present purpose for which the the map is constructed is the representation of the areal geology of the country, and the map should be constructed on such scales and should represent such topographic features as are of prime importance in geologic investigation; but while the immediate purpose of the map must be thus considered, it should be remembered that it may be made useful for many other important purposes in showing the geographic distribution of phenomena. Once constructed and engraved, the plates may serve for new editions from time to time, to be used for a great variety of purposes: in the study of drainage systems; in the study of the regimen of rivers; in the study of the great subject of irrigation; in the study of the distribution of forests; in the study of the distribution of artesian waters; in the study of catchment areas for the supply of water to cities; in the study of the drainage of swamps and overflowed lands; in the study of soils and the classification of lands for agricultural purposes; and in the laying out of highways, railroads, and canals. The maps will also be of prime importance for strategic and administrative purposes in the event of war. The uses for topographic maps when once constructed are very many, but there is no demand more exacting than that made by the geologist, and if properly made to meet his wants they will subserve all the purposes of the civil engineer, the agriculturist, the military engineer, and the naturalist; and it is believed that a topographic survey has been inaugurated which will meet all practical wants.

(3) The experience of various geologic surveys prosecuted by the General Government and by the several States has shown that a map on a scale of 1:250000 or about four miles to the inch, is necessary for the intelligent presentation of the principal facts of structural geology; that in all of those portions of the country where the structure is in any degree complex a smaller scale is inadequate; and that in many portions of the country where the structure is highly complex and the uses of the maps vary, larger scales are required.

(4) The need for a topographic map is perennial, and the map once constructed should be enduring, that the expense of frequent resurveys may be avoided; and this important condition has been carefully weighed.

(5) The cost of the survey is paid from the National Treasury: it is therefore made at the expense of the people of the United States, and should meet the wants of the greatest number of persons; and the map should be so simple that it can be used by all people of intelligence.

The geographic basis of the map is a trigonometric survey, by which datum points are established throughout the country—that is, base lines are measured and a triangulation is extended therefrom. This trigonometric work is executed on a scale only sufficiently refined for map-making purposes and will not be directly useful for geodetic purposes, *i. e.*, in determining the figure of the earth. The hypsometric work is based upon the railroad levels of the country. Throughout the greater part of the country there is a system of railroad lines, constituting a network. The levels or profiles of these roads have been established with reasonable accuracy, and as they cross one another at a multiplicity of points, a system of checks is afforded, so that the railroad surface of the country can be determined with all the accuracy necessary for the most refined and elaborate topographic maps. From such a hypsometric basis the reliefs for the whole country are determined, by running lines of levels, by trigonometric construction, and in mountainous regions by barometric observation.

The primary triangulation having been made, the topography is executed by a variety of methods, adapted to the peculiar conditions found in various portions of the country. To a large extent the plane table is used. In the hands of the topographers of the Geological Survey the plane table is not simply a portable drafting table for the field, but is practically an instrument of triangulation, and all minor positions of the details of topography are determined through its use by trigonometric construction.

The plan for the map contemplates map sheets of three different scales, suited to the requirements of the various sections of the country, namely, 1:62500, 1:125000, and 1:250000. The first is approximately 1 mile to the inch, the second 2 miles to the inch, and the third 4 miles to the inch. The considerations governing the scale are, first, present or prospective density of settlement; second, economic importance;

third, complexity of geologic phenomena; fourth, degree of detail in topographic features.

The map is engraved in sheets, of which the unit is the square degree, *i. e.*, one degree of latitude and one of longitude. On the 4-mile scale each square degree forms one sheet; on the 2-mile scale each square degree forms four sheets; while on the 1-mile scale each square degree forms sixteen sheets. Four-mile sheets are designated by the numbers indicating the latitude and longitude of the southeast corner of the area represented. Thus "40-100" designates the sheet which covers the degree immediately north of latitude 40 and west of longitude 100. The 2-mile sheets are designated in the same way, with the addition of the further description "SE. $\frac{1}{4}$," "NE. $\frac{1}{4}$," "SW. $\frac{1}{4}$," "NW. $\frac{1}{4}$," as the case may be. In like manner the 1-mile sheets are designated by the numbers representing the latitude and longitude of the degree, with the addition of the proper fractional designations, such as "SE. $\frac{1}{4}$ of the SE. $\frac{1}{4}$," &c.

Experience has shown that relief can best be expressed in contours with varying vertical intervals depending upon the character of the topographic relief; that in the more rugged mountain countries intervals of 200 feet will serve all necessary purposes; but that the intervals should grade down from 200 feet to 20 feet as the topographic features become more plain. Experience has also shown that it is not necessary in general to run contours on the ground, but that skillful topographers can represent the vertical element of topography with sufficient accuracy for the purposes of a geologic map, on any scale selected for such a map, by constructing contours from salient and controlling points determined trigonometrically and barometrically at varying intervals depending upon the characteristic features of the landscape.

Although the method of representing relief in contours or grade curves has long been in vogue in this and other countries, these conventions have usually been supplemented by hachures or brush shading whenever it became necessary to represent widely diverse types of topography on the same map. To a certain extent, therefore, the plan of representing the relief of all parts of the surface of a country upon a uniform series of maps by means of contours alone, was an innovation; and it is a source of gratification to find that this plan is eminently successful. The objections to the use of hachures and brush shading are manifold: they obscure the map and conceal the conventions employed for the representation of other conditions and features of the surface; they easily degenerate into generalized conventions for imperfectly ascertained facts of relief, and thus fail to convey accurate information; they lead to the development of special artistic styles by the several draughtsmen employed upon the work, and thus do not have a uniform meaning from sheet to sheet; in districts of complex topography they are difficult of interpretation; and they represent reliefs only in a qualitative manner. Another potent reason for the rejection of hachuring methods of representing topographical reliefs inheres in their excessive cost. The drawing and engraving of topography with hachures is many times more expensive than the drawing and engraving of the same in contours. In fact, hachure drawing and engraving almost equal in expense the field work by which the facts are collected. In the preparation of a map of a region so great as the United States—three million square miles in area, exclusive of Alaska—questions of economy are of prime importance. The method of hachuring has gained, and yet maintains, a strong hold among geographers because of its artistic capabilities; for by means of hachures alone, or in combination with either brush shading or contours, or both, it is possible to produce maps that have much artistic beauty and as forcibly express the artistic conceptions and individuality of their authors as do paintings and statuary. But therein lies the imperfection of the system; for in so far as the finished map expresses the individuality of the author, in just so far does it defeat the purpose for which it was designed, namely, the accurate representation of a portion of the earth's surface.

The prosecution of the topographic survey, unlike the original research of the geologist, is to a large extent a work of applied science; and, after the adoption of suitable methods and standards, the surveys and the preparation of maps can be carried forward with few changes in organization save those demanded by changes in the field of operation. Experience has shown, however, that there is constant improvement in methods and elevation of standards.

Anterior to the organization of this division of the Geological Survey, topographic science and topographic art had received high development through other organizations in this country and in Europe; but to a large extent such work had been prosecuted with the object of producing charts for military purposes on the one hand, or for fiscal purposes on the other; and thus the art had been directed to the production of military maps and cadastral maps. During the last half century the science of geology, because of its great industrial importance, has been greatly developed; and as all the civilized nations of the earth have promoted and endowed geologic research, and as geologic maps are among the most important results arising therefrom, the need for topographic maps as a basis for geologic maps has largely modified the map-

making systems of the world. Yet the earlier purposes for which they were made largely prevailed, with the result of still producing maps chiefly valuable for military or cadastral uses. Now, such maps are on scales too large for general industrial purposes, and must represent such a variety of facts as to make them exceedingly complex; still further, the multiplied data presented are to a large extent ephemeral, and the maps which represent them must be frequently revised by resurvey, redrawing and re-engraving.

In developing the topographic work of the Geological Survey, especial attention has been given to the industrial purposes for which maps are made; for the best topographic map for geologic purposes is also the best for other scientific and industrial purposes.

If a good topographic map of the country be constructed, having in view the representation of three classes of facts: first, public cultural features; second, hydrographic features; third, hypsographic features, such a map is a proper basis for a geologic map. It is also a proper basis for all other maps designed for industrial purposes; and it is a proper basis for general military maps, and provides the fundamental data for cadastral maps. Such a map of the United States is now in process of construction.

Having decided the scale and the class of facts to be represented upon the map, the survey in the field must be adjusted thereto for economic considerations; and this fact has been kept persistently in view in the organization of this branch of the service.

The cartographic conventions, *i. e.*, the symbols to be used on the maps for the representation of the cultural, hydrographic, and hypsographic facts, have been reduced to the greatest possible simplicity, in order that the maps may be easily understood and be of value to all classes of people. As the cost of the survey is borne by all the people of the United States, it was not deemed just that a map system should be adopted with a view to subserve the wants of trained engineers only. Still it is believed that while the system selected is so simple as to be easily used by all, it yet represents, with precision and accuracy, all the topographic facts desired by the engineer.

The maps already completed and engraved by the Survey include a great variety of topographic types, but all of these have been reduced to the uniform standard of cartographic representation adopted at the commencement of the work. The experience gained in the prosecution of the surveys upon which these maps are based, and the preparation of the maps themselves, demonstrate that the method of representing relief by contours not only enables the topographer to express the condition of the earth's surface quantitatively, but that within certain definite limits it permits the expression of artistic conceptions, and hence the production of maps which are highly, but not obtrusively, artistic and at the same time strictly accurate.

The sheets are engraved on copper, three plates being required for each. On one is engraved the hydrography; on the second, the hypsography, represented by contours or grade curves; and on the third, the projection lines, lettering, and public culture. Private culture is not represented on the map. The hydrography is printed in blue, the hypsography in brown, and the lettering and culture in black.

The recognition and delineation of the features of the earth's surface by the topographers of the Survey has become a highly developed art, depending on experience and mechanical skill, the training and co-ordination of the eye and hand, and the development of artistic perception of the reliefs diversifying the land. The value of the reliefs and the character of the topographic forms determined thereby vary from place to place, and the features of the surface are variously concealed by forests; and the methods of surveying in different localities are modified by the topography, the degree of concealment by forests, the facilities for travel and subsistence, and various other conditions. So the character of the special training of the topographer varies locally. Nevertheless, special work in any field is beneficial, and in a measure prepares the surveyor to enter upon other fields of work intelligently and promptly; and accordingly the retention of skilled topographers is found to be highly advantageous. Hence the changes in organization of this division of the Survey, required from time to time as the work is completed in certain areas and initiated in other areas, do not generally involve material changes in the *personnel*.

Under the statutes relating to the Geological Survey there is no provision for the general publication of purely topographic maps. These maps can be published only as a basis for "geological and economic maps illustrating the resources and classification of the lands," but a small edition is necessarily printed for the use of the employés and collaborators of the Survey in the prosecution of field work.

The demand for topographic maps has grown to great proportions, and it may be found advisable to ask the authority of Congress for their general distribution.

Although the topographers employed by the Survey are necessarily competent draughtsmen and usually construct their own maps, it has been found desirable, in order (1) to secure uniformity in style and character, and (2) to obviate the necessity

for employing the topographers in the office during months in which they might more profitably be employed in the field, to organize a section of topographic drawing. In like manner the necessity for the adoption of uniform standards for the astronomic and geodetic work required in the co-ordination of the topographic surveys has led to the organization of an astronomic and computing section. Finally, it has been found economic, both in time and money, to establish a section in which are made the repairs of the large number of instruments constantly required by the division.

THE GEOLOGIC DIVISIONS.

General statement.

In organizing the general geologic work it became necessary, first, to consider what had already been done in various portions of the United States; and for this purpose the compilation of a general geologic map of the United States was begun, and was completed in time for publication in the fifth annual report. This map, which is colored by groups, represents the general knowledge of the geologic structure of the United States acquired antecedent to the organization of the Geological Survey.

At this point it became necessary to consider the best methods of apportioning the work; that is, the best methods of dividing the geologic work into parts to be assigned to the different corps of observers. A strictly geographic apportionment was not deemed wise, from the fact that an unscientific division of labor would result, and the same classes of problems would to a large extent be relegated to the several corps operating in the field and in the laboratory. It was thought best to divide the work, as far as possible, by subject-matter rather than by territorial areas; yet to some extent the two methods of division coincide.

It also became necessary at the outset of the geologic investigation to develop a system of taxonomy applicable to American rocks, and a system of conventions whereby these rocks might be properly distinguished upon maps issued by the Survey, and properly designated and defined in the accompanying letter-press. But there are difficulties in the way of developing such systems of taxonomy and graphic conventions. In the first place, there has grown up with geologic science a conventional language involving a taxonomy and a method of graphic representation which is based on the phenomena of other countries, and which is accordingly, to some extent, inapplicable to American rocks; it is nevertheless desirable to adhere as closely as possible to this conventional language because of its wide adoption. In the second place, it is manifest that a great portion of the rockmasses to be classified and represented on the maps have not yet been discovered. It has accordingly been necessary to devote much labor and thought to the development of a cartographic system which shall meet the following among other conditions: (1) it must be sufficiently definite to be readily intelligible to all users of the geologic maps published by the Survey, whether their interests lie in the scientific relations of the phenomena represented or in the economic resources of the areas mapped; (2) it must be sufficiently elastic to yield to the requirements, not only of the tentative classification of the rocks now in vogue, but of such final classification as may be evolved after the extension of geologic operations over the whole country; and (3) it must be sufficiently comprehensive to represent, without duplication of conventions and symbols, all rockmasses of the entire dominion of the United States which it may at any time become necessary to discriminate for scientific or economic reasons.

Pending the completion of a cartographic system suitable for present and future needs, geologic investigation of course has continued; and indeed the results of such investigation, as developed from time to time, have served an important purpose in determining the limitations and requirements of the cartographic system. Moreover, questions as to the taxonomic positions of the rockmasses discriminated in the field have arisen from time to time, and will continue to arise in the future. The cartographic system devised to meet the various considerations involved must, therefore, be applied from time to time, as research progresses; and the rockmasses discriminated by each geologist in the field have to be correlated with those discriminated by every other geologist, and the entire sum of observations has to be combined and built up into a single comprehensive and symmetric system. To this end exhaustive study of the current and antecedent literature of American geology and occasional field investigations in critical areas are required.

The Geological Survey inherited much unfinished work of different surveys in the Western Territories previously prosecuted under the auspices of the Government. Since it seemed desirable to carry forward and complete these surveys as rapidly as possible, investigations were continued in the fields covered by them, and thus the early organization of the Survey was determined in part by antecedent geologic work. At the same time, however, demands for local geologic and mineralogic investigations came from various portions of the country, including the older and long-settled States,

and as soon as the legality of such action was established the geologic operations of the Survey were extended into the older States, and a number of divisions were organized and intrusted with the investigations.

It should be explained that by its organic law the Geological Survey is inhibited, both implicitly and directly, from making a geologic survey upon a cadastral plan, *i. e.*, from making investigations relating to the value of properties of individuals and private corporations. Accordingly, its work in economic geology is limited to the observation and mapping of the formations within which mineral resources lie; the general distribution and characteristics of coal beds, ore bodies, and other valuable mineral deposits; and the investigation of questions relating to the origin and taxonomic relations of the formations themselves and of their contained minerals.

Within the above limitation it has been found possible to make the scientific investigations of the Survey of high economic value, (1) by extending its operations into those portions of the different States in which the natural resources have not yet been fully developed, and (2) by developing and applying such systems of classification of the formations as will at the same time enable and compel the geologist to discriminate in the field and clearly distinguish on the maps of the Survey those rockmasses which are economically important. Both of these means of rendering the investigations of the Survey of maximum value to the country have been adopted. Moreover, friendly relations exist between the United States Geological Survey and the geologic surveys prosecuted under the auspices of different States of the Union; and in many cases partial co-operation with these States has been effected in such manner that the State geologists leave to the Federal Survey the investigation of such general scientific questions as involve operations beyond the limits of their own States as well as within them and avail themselves of the results of this investigation, and in return permit the general Survey to utilize the results of their own more strictly economic studies.

Many of the investigations undertaken within the public domain are purely economic in character, and all give promise of results of economic importance—either immediately through the discovery and development of natural resources, or remotely through the additional knowledge gained from them as to the modes of origin and laws of distribution of ore deposits, the relations between geologic structure and agricultural capabilities, &c.

To meet the various requirements and conditions a number of geologic divisions have been organized.

Archean Division.

The rocks of the earth are divisible into three great classes: (1) The crystalline or azoic masses (often denominated Archean) which form the base of the geologic column, and are destitute of fossils and generally without traces of organic life; (2) the elastic or fragmentary strata, which constitute the greater part of the geologic column, and represent nearly the whole of that portion of the history of the earth with which geologists have become familiar, and which generally contain the remains of animal and vegetal organisms by which they may be classified; and (3) the volcanic rocks which have been erupted at various stages of the world's history and are intercalated in various parts of the geologic column.

The great mineral wealth contained in the first of these systems of rocks renders their study one of the most important in the whole field of economic geology. Moreover, they represent one of the most interesting and at the same time obscure stages in the geologic development of the globe; but, by reason of their general concealment beneath newer rocks, as well as by reason of the absence of fossils and the dearth of other criteria for their genetic and chronologic classification, the relations of these rocks to one another, to the elastic and volcanic series, and to their contained minerals, are little understood. There are even grave doubts whether the best methods of investigating these rockmasses and the best criteria for their classification have yet been developed. The Archean rocks, therefore, offer one of the most promising subjects for geologic study in this and other countries; and it was imperative, in view of both its scientific and its economic aspects, that such investigations should be commenced in this field as will result not only in the discovery and classification of phenomena, but in the general advancement of our knowledge of the principles involved in this branch of geologic science.

The investigations in Archean geology of the eastern portion of the United States were intrusted to Prof. Raphael Pumpelly.

Atlantic Coast Division.

It is estimated that there are 100,000 square miles of coastal lands in this country which, subject to inundation by tidal and fluvial waters, are valueless in their present condition. It would appear, from the experience of other countries,

that by the employment of proper methods these lands might be reclaimed and rendered among the most valuable of the agricultural lands of the United States. But the relative altitude of land and sea is not constant: in some places the ocean is encroaching upon the land, and elsewhere the land is emerging from beneath oceanic waters; and even where the level of the coastal lands is stationary, the shores are undermined and eaten away by the waves, and thus the sea gains upon the land in another way. Now it would be unwise to inaugurate expensive systems of reclamation of inundated lands without first ascertaining whether these lands are undergoing movement, and if so in what direction; and in order to guide engineering operations directed to such reclamation, a general investigation of the changes in level now in progress along the Atlantic coast has been undertaken.

Connected with these questions of oscillation of the land and the formation of coastal marshes is that relating to the origin and distribution of the bog ores, phosphatic beds, &c., now in process of formation in the marshes of the Atlantic coast, and, imbedded in the Cenozoic formations thereof, constituting one of the most important mineral resources of the Atlantic States.

These subjects of investigation and others of related character have been placed in the hands of Prof. N. S. Shaler.

Appalachian Division.

By reason of its vast extent, its symmetry of structure, and the economic importance of the minerals contained in its rocks, the Appalachian mountain system has long been regarded as one of the most promising fields for geologic study to be found in any country. The publication of an elaborate treatise growing out of the investigations prosecuted under State auspices in Pennsylvania by H. D. Rogers, nearly thirty years ago, directed the attention of capitalists and scientific men to the portion of the field lying within that State, and the great development of the mineral resources of the Keystone State in the various forms of anthracite and bituminous coal, iron, petroleum, and natural gas must be attributed in large part to the stimulus afforded by these early scientific researches and the extensive publication of the results thereof; for the nearly commensurate mineral resources of Virginia, which were also investigated under State auspices about the same time by the equally eminent W. B. Rogers, the final results of whose researches were unfortunately never published, have remained to a great extent unknown.

The surveys instituted by the Geological Survey in the Appalachian region traverse the fields already occupied by the brothers Rogers and other geologists who have studied the region, and in addition to their purely economic results these surveys promise to throw much light on various obscure questions in geology: *e. g.*, the origin of the sediments of which a large portion of the rocks of the American continent are composed; the geographic configuration of the eastern portion of the American continent during different stages in its geologic development; the distribution of faunas and their modification by local conditions, and hence their value as bases for geologic classification; the petrographic diversity of formations laid down within the same geographic province; the origin and mechanism of mountain making movements and of continental oscillations; the metamorphism and other alterations of rocks produced by various causes; the genesis of coal and other carbonaceous minerals, and many other questions equally important in philosophic geology. The economic results of these researches give equal promise.

This division is in charge of Mr. G. K. Gilbert, who has a strong corps of assistants.

Lake Superior Division.

The copper-bearing rocks of the Lake Superior region (known among geologists as the Keweenaw Series) have been investigated in some detail by the State surveys of Michigan and Wisconsin, and the northward continuation of the same rocks has been examined by the officers of the Canadian survey. But so long as geologists confined their attention to this single formation as an isolated congeries of phenomena, they were unable to ascertain its genetic and structural relations to the other formations of the country, and great confusion and uncertainty prevailed with respect to the copper-bearing series of rocks up to a very recent date.

When the operations of the Geological Survey were extended into the older States, Prof. R. D. Irving was employed to investigate these and associated rocks, not only within the limited area in which alone copper mines have been opened, but also in adjacent parts of Michigan, Wisconsin, and Minnesota, and, as his reports have shown, his studies have already extended over a considerable area and have been productive of valuable results.

Glacial Division.

One of the ultimate purposes of the Geological Survey is the classification of the soils of the country with respect to their agricultural capabilities. As a necessary preliminary thereto, extended investigations of the superficial deposits constituting the subsoils have been undertaken; for the soil is simply derived from the subsoil through the action of the sun, rain, frost, the products of vegetal decay, and other agencies, and any classification of the soils involves the classification of the subsoils. Experience in the various lines of geologic research has shown that the genetic classification of geologic products, involving as it does a thorough knowledge of the character thereof, is the only satisfactory one.

This work, which was commenced shortly after the inauguration of the Survey, was intrusted to Prof. T. C. Chamberlin. Hitherto Professor Chamberlin has been compelled by practical considerations to confine his investigations to the glacial drift and its immediate derivatives; and since the immediate object of his studies was rather the discovery of the principles upon which soil classification may be based than the development of the classification itself, the results thus far attained have been scientific rather than economic.

Professor Chamberlin's work upon the glacial drift is the most comprehensive investigation of the class of phenomena involved ever undertaken in any country. It may now be regarded as approaching completion, and final reports upon different lines of the investigation will appear from time to time as the materials already collected are digested and elaborated.

Montana Division.

The mountain systems of the western part of the country are distinguished from those of the eastern portion by their greater irregularity and asymmetry, by their more recent origin, and in many other ways. Now, the structure of a mountain system is determined by its constituent rocks, and the first step in a comparative study of mountains is the determination of the age and structure of the rocks composing each of the systems compared. At the same time, the structure of the mountain system varies in a certain definite way from that of contiguous plains: the formations occupying vast areas in the plains are also represented in the mountains, where, by reason of their high inclination, they occupy small areas; the formations which in the plains are destitute of valuable minerals when traced into the mountains sometimes become metalliferous, &c. Moreover, the great vertical scale of rock exposure in mountains facilitates geologic investigation there; and so the succession of formations as developed in a single cañon of a mountain range frequently affords a key to the stratigraphy of a vast area of simple structure and plain topography.

With the foregoing considerations in view, investigations were undertaken, shortly after the establishment of the Geological Survey, in a specially interesting portion of the Rocky Mountain region lying within Montana. The work was intrusted to Dr. F. V. Hayden; but by reason of the ill-health and consequent resignation of this veteran geologist, it has recently been transferred to his former assistant, Dr. A. C. Peale.

Yellowstone Park Division.

Inquiries emanating from Congress and from different Departments of the Government from time to time have demonstrated the desirability of ascertaining and making known to the public the character and attractions of this great National Park, in order that the purposes for which it was set aside may be fulfilled. Something is indeed known throughout the civilized world of its superb scenic features, the wonderful geysers and the unique mineral deposits resulting therefrom, the magnificent forests and the unique fauna of this national preserve; but it is important that exact knowledge concerning this reservation for the use of the public, set aside by a great nation, should be disseminated among its people. Moreover, there are now in active operation within the National Park geologic agencies related in kind and degree to those which have been effective in the deposition of various minerals during different geologic periods. Nowhere else in the known world are the operations of nature's laboratory more thoroughly revealed; and observations upon certain geologic processes here promise to add much to existing knowledge of ore deposition and kindred subjects.

This double object in thoroughly investigating the National Park led to the establishment of a division for this purpose some years ago. The division was placed in charge of Mr. Arnold Hague, and a portion of the results of his investigation have already appeared in different publications of the Survey.

Colorado Division.

One of the uncompleted investigations inherited by the Geological Survey was that of the extensive mining regions in Colorado, and work in that wide field has been continued ever since.

Mr. S. F. Emmons is the geologist in charge of the work of this division. The region covered by the investigation is of exceedingly complex structure, and a great variety of rock formations as well as mineral deposits exist. The formations represent all portions of the geologic column, from the crystalline rock masses of the Archean at the base, through the extensive series of the Paleozoics and the enormously developed Mesozoics, to the vast series of lacustral deposits laid down in the Rocky Mountain region during different epochs of the Cenozoic. Extensive fields and masses of eruptive rocks also occur, associated with the sedimentary and non-volcanic formations in various ways. The precious metals of the region are accumulated in and distributed through many different formations, while valuable beds of coal are found in both the Mesozoic and the Paleozoic strata. A thorough knowledge of the geologic structure of the entire region is accordingly essential to a satisfactory exposition of the mineral resources of the State. Moreover, here, as in the Rocky Mountain region of Montana, there are represented different types of orographic structure, the study of which is demanded on broad scientific grounds, and the stratigraphy displayed in the mountains affords a key to the structure of the great area of plain topography and rare rock-exposure lying to the eastward. The investigations within the region have accordingly been made along different lines, but the various lines converge and the different objects of the investigation are attained from time to time.

California Division.

In 1883 Mr. G. F. Becker undertook the investigation of the quicksilver belt of Eastern California and Western Nevada. To a certain extent the field was a new one; for, although geologists had given some attention to quicksilver deposits in Spain and other countries, the mode of occurrence and the petrographic relations of the mineral in California are in part unique. The investigation therefore extended not only to the quicksilver and immediately associated rocks, but also to the various associated formations, and eventually included many questions relating to the influence of pressure, temperature, &c., upon rock metamorphism and mineral deposition; and among the results of the investigation must be numbered many important additions to previous knowledge of the principles of dynamic geology. These investigations, too, indicate very clearly the intimate interrelations between geology and the sister sciences, and demonstrate the importance of that broad and comprehensive study which it has ever been the aim of the Geological Survey to foster; for among the results of Mr. Becker's researches must be enumerated the discovery of new and important laws in both physics and chemistry. The general and purely scientific problems investigated have, however, been subordinated to the primary purpose of the survey, *i. e.*, the discovery and the succinct exposition of the mode of occurrence and general distribution of the quicksilver deposits of the Pacific slope.

Mr. Becker's energies are now concentrated upon a new field, the California gold belt. Preliminary studies of this belt were made some years ago by the then existing State Geological Survey of California, but these studies were never completed; and it is believed that further investigation will not only throw much light upon problems involved in the exploitation of the region and the development of its resources, but that they will at the same time direct attention to portions of the area which may be prospected with hope of success, and prevent useless expenditure of time and money in hopeless prospecting in other portions.

Volcanic Division.

A single division of the Survey has been established for the purpose of investigating one of the three great classes of rocks described in an earlier paragraph, the eruptives or volcanic rocks. It has been placed in charge of C. E. Dutton, captain of ordnance, U. S. Army, who has been detailed to this office by the honorable the Secretary of War under authority of a specific statute.

Volcanic rocks occur in all of the Western Territories, and, in less volume, in most of the older States. The lavas of which they are formed have been extravasated during various geologic periods; they have affected the different sedimentary formations with which they have been brought in contact in a great variety of ways; in certain portions of the country they are of vast thickness and areal extent; some of the precious metals and gems occur within them; they are important elements in the orographic structure of many mountain systems; the extravasation of their materials

is intimately connected with orogenic movements, and they are consequently involved in the taxonomy of mountains; and by their constitution they afford some insight into the condition of the interior of the earth. It is therefore important upon many grounds, both scientific and economic, that researches upon this class of rock should be as thorough and profound as the knowledge and capabilities of man will permit.

The phenomena of volcanology and those of seismology are intimately related and it is a plausible hypothesis that these phenomena are genetically connected. Accordingly the investigations of earthquake phenomena, &c., undertaken by the Survey are carried on in this division.

Lower Mississippi Division.

One of the most recently established of the divisions of the Survey is that which has for its object the investigation of the iron ores, the sulphur and salt deposits, and the various other mineral resources of the States of Mississippi, Louisiana, and Texas. It is in charge of Mr. Lawrence C. Johnson.

Mr. Johnson's efforts have been directed to the ascertainment of the geologic relations of the various beds yielding valuable minerals and the detailed structure of the entire region; for in a region of such simple general structure as that of the Gulf States it is possible to predicate the positions and depths beneath the surface of formations containing mineral deposits with a good degree of accuracy, provided the relations between the mineral deposit and its country rock have been determined.

Potomac Division.

When the Geological Survey was organized very little was known of the geologic structure of the District of Columbia and contiguous portions of Maryland and Virginia; but as soon as possible after its organization geologic investigations were undertaken within this region, as has been mentioned in different reports. The work is in charge of Mr. W J McGee.

One of the lines of work pursued in this division relates to the green-sand deposits of Eastern Maryland and Virginia, along the Potomac, Rappahannock, York, and James Rivers, and Chesapeake Bay. Important deposits of this natural fertilizer have been found here and promise to eventually revolutionize agricultural methods in this region.

THE ACCESSORY DIVISIONS.

The Divisions of Paleontology.

Ever since the birth of geologic science the importance of the fossils found in the rocks as a guide to geologic classification has been recognized; indeed, a large proportion of the questions which the geologist is called upon to answer cannot be answered without their aid, and paleontology, therefore, is now, as it ever has been, an essential part of geologic science. But geology is differentiated into many departments, and its progress has been along many lines; a large fund of special knowledge is required of the student in each; and the literature in each has become voluminous. Accordingly, it is no longer possible for the geologist, whose function it is to study the relations of the rocks themselves, to adequately investigate the relations of the fossils contained in these rocks. Division of labor is required: the geologist investigates the rocks and ascertains their physical characteristics and relations to contiguous rockmasses; while the paleontologist, studying the fossils collected from the same rocks by the geologist, determines the relations of these rocks to rockmasses in all parts of the earth. To meet this imperative demand for paleontologic investigation a number of divisions have been created; and although paleontology is but a subordinate branch of geologic science, and the results of paleontologic investigation are hence but means to an end, the publications growing out of the work in these divisions are among the most valuable contributions to science already published or to be published in the near future by the Survey.

One of the most important results of paleontologic research has been the development of the fact that the different classes of organic remains yield diverse units of geologic time. Thus, plants are little susceptible to the climatic and geographic changes that have occurred from time to time in the geologic history of the earth; modifications in the vegetal organisms have consequently proceeded slowly; and hence the plant remains found in the rocks by their changes record great periods of time. The lower and less differentiated animal forms, the mollusca, radiata, &c., that inhabit the ocean, yield more freely to conditions of environment, and are much less

stable than the plants; they have accordingly undergone greater and more rapid modification; and the chronologic units marked by these modifications are shorter. But the most sensitive geologic chronometer and that marking the shortest time units is afforded by the vertebrata, and especially by the more highly developed land animals. Now in order to reduce the records of these different measures of geologic time and indices of taxonomic relations to a common standard, thorough investigation of the three great classes of fossils is demanded. Moreover, it frequently happens that formations containing plant remains are destitute of both vertebrate and invertebrate fossils; that beds yielding invertebrate fossils are without the remains of vertebrates or plants; and that great deposits characterized by vertebrate remains are destitute of the slightest traces of other remains of life; and hence the determination of age and taxonomic relation depends now upon one, and again upon another, class of fossils. Thus different lines of paleontologic investigation have grown up in the Survey.

Among the rockmasses of the Western Territories, important by reason of their vast area and their immense thickness, there are many that were deposited in extensive lakes during late Mesozoic and Cenozoic time. These lakes were fed by great rivers; and within the sediment swept into these lakes there were preserved the bones of vertebrate animals that lived within the lacustral waters and upon the adjacent shores; and by means of comparative study of these bones the paleontologist is enabled to correlate the deposits laid down in different portions of the same lacustral area with each other and with the deposits of contemporaneous lakes, and at the same time to reproduce some of the most interesting scenes in the world's history. Prof. O. C. Marsh has had charge of the investigation of these remains for some years, and has already made several contributions to our knowledge of extinct animal forms, and brought to light data of importance in the development of geologic taxonomy.

The organic remains useful in correlating and classifying the lower third of the fossiliferous series of rocks are predominantly those of invertebrates, and accordingly this great class of fossils has been diligently studied, both in their biotic relations and in their relation to the strata within which they occur. This investigation is in charge of Mr. C. D. Walcott, whose paleontologic laboratory is in the National Museum.

At its inception paleontology was little more than a set of empiric rules for the classification of formations by means of their contained fossils, viewed as accidental or petrographic characters; but in the present stage of geologic science the value of paleontology to the stratigraphist, as well as to the student of historic geology, depends largely on the power which it gives of restoring and mentally picturing the geographic, topographic, climatic, and other conditions prevailing in the various parts of the globe during each geologic epoch. Studied in this broad way, fossils serve not only as data for the empiric correlation of the strata, but they enable the geologist properly to weigh and, in many cases, properly to interpret their own testimony, and thus mutually adjust the different time units of the three great classes of organic remains. It is with this view of the purposes of paleontologic investigation that researches by Dr. C. A. White have been made on the invertebrate fossils of the Mesozoic system of rocks in the United States.

Fringing the Atlantic and Gulf coasts of the United States there is a broad zone of fragmental deposits, constituting the upper part of the fossiliferous column as represented in the American continent: the Cenozoic system of rocks. These deposits comprise a number of distinct formations representing different geologic periods. Within them are found the extensive greensand and phosphate deposits, which constitute the most important source of natural fertilizers in this country and which are thus far only partially developed. In the same formations there occur vast accumulations of iron ore, and some of the formations contain deposits of sulphur, salt, and other valuable minerals. Geologic investigation has already commenced within the portion of this zone covered by the operations of the Mississippi division of geology; but it is important that before extended geologic investigations are carried into this field a general study of its representative fossils shall be made, in order to facilitate prompt and trustworthy classification of the strata upon paleontologic grounds. This general investigation has been commenced by Mr. W. H. Dall.

Although plant impressions were among the first fossils to stimulate popular curiosity and attract scientific investigation, they were among the latest to acquire importance as criteria for the classification of the rocks in which they occur. Their utility for such purposes is now generally recognized, and a division for their investigation has been established in the Geological Survey, and Mr. Lester F. Ward, whose extensive collections and laboratory are in the National Museum, is in charge of it.

In this, as in the other lines of paleontologic investigations pursued by the Survey, the primary object of study is not alone empirically to classify fossiliferous formations by means of their contained fossils in accordance with existing knowledge, but rather

to develop the fundamental principles involved in the relations of rocks and fossils, and this necessitates a knowledge of the organisms fossilized, of the manner in which the fossils became imbedded, and of the various circumstances and conditions attending these processes. Thus the value of plants as indices of geologic vicissitudes must be ascertained before their reliability as bases for a comprehensive geologic taxonomy can be determined. Accordingly, as sufficiently indicated by his reports, Professor Ward's studies have thus far been general and philosophic, and his results are contributions to the science of paleobotany rather than applications of the science to geologic technology.

The investigations of the geologists of the last generation, during which there was great activity in geologic work in the Eastern United States, have shown that there is an important hiatus in the geologic column as represented in the Appalachian Mountains and along the Atlantic coast. This hiatus occurs about the place of the lower and middle portions of the Mesozoic system of rocks, and it is impossible to form definite conceptions as to the succession of events in the geologic development of the continent until this gap is filled. Fortunately some epochs of the periods generally unrepresented in Eastern America are sometimes represented locally by stratigraphically and geographically unimportant formations. One such formation is the Trias of Connecticut, New Jersey, Pennsylvania, Maryland, and portions of Virginia; another is the probably distinct series of deposits of Southeastern Virginia, by some geologists regarded as the American equivalent of the European Rhaetic; and a third is the formation intercalated between the Piedmont crystallines and the known Cretaceous rocks of the Atlantic slope, which probably belongs to a late Jurassic or early Cretaceous period unrepresented elsewhere in America, to which the name "Potomac formation" has been applied. The last two formations are practically destitute of animal remains, but each yields abundant traces of a unique and luxuriant flora; and with the hope of completing the geologic history of the American continent, the floras of these formations have been critically investigated in the division of paleobotany by Prof. William M. Fontaine.

In accordance with the general theory held by the Survey, that collateral investigations ought to be simultaneously carried forward along as many convergent lines as possible, a study of the fossil insects found in the Paleozoic and Mesozoic rocks in different parts of the country has been instituted. The investigation has been put in the hands of Mr. S. H. Scudder, the eminent specialist to whom the world is indebted for an important share of existing knowledge of the insect faunas of past ages. It is especially important that the study of fossil insects should be prosecuted in connection with that of fossil plants; for, as shown by the most eminent biologists, the history of plant life has been intimately connected with that of insect life; many of the most important modifications in plants are directly attributable to the agency of insects; and thus insects are as reliable indices of climatic and other conditions that have prevailed during the various geologic epochs as the plants themselves. Moreover, insects, like plants, tell of terrestrial conditions, while a large share of the other fossil remains that have been subjected to examination tell only of the sea and of aqueous conditions; and it is as important to geologists, whatever be the ultimate aim of their researches, to understand the various stages in the development of the land as to interpret the history of the seas.

Division of Chemistry and Physics.

While the chemie work of the Survey is ever regarded as subordinate to geologic investigation and its character and specific objects are determined from time to time by the needs of the geologists of the Survey, original investigation in different collateral lines is encouraged, it is believed, with beneficial results. Thus interesting questions relating to the genesis of certain minerals and to the agency of certain waters in forming minerals have been investigated in this division of the Survey. Many of the researches carried on in this division have a direct practical bearing upon questions connected with the development of the mineral resources of the country.

A class of criteria for determining the relations of rocks is found in their chemie constitution. Most of the questions of geologic technology, or the application of geologic science to the arts, involve a knowledge of the chemie constitution of rocks; and in addition requests for the chemie examination of various rocks, minerals, ores, soils, waters, gases, and natural oils, required for the proper prosecution of important public works, reach the Survey from time to time. To meet these various demands, a division of chemistry was early organized by the Survey, as specified in the annual reports.

There is a physical laboratory connected with the chemie laboratory, in which are prosecuted researches relating to the effects of temperature, pressure, moisture &c., upon rocks, and the causal conditions of crystallization, segregation, and secondary alterations of various kinds, such as have during the geologic ages resulted in the formation of mineral veins, the metamorphism of rocks, &c. Hitherto the geologis

engaged in the discussion of problems, involving coefficients of friction, moduli of elasticity, constants expressing the effects of pressure, temperature, &c., upon rocks, and other questions continually arising in dynamic geology, has generally been compelled to confine himself to the use of constants determined in connection with the arts; but such constants are unsatisfactory, since they are applicable only to a much more limited range of conditions than those encountered by the dynamic geologist. Accordingly, an adequate discussion of such phenomena demands more accurate determination of constants applicable under a wide range of conditions, and this involves the improvement of methods of determination and the devising of special apparatus therefor. These are the ends kept in view by Dr. C. Barus and his associates, the physicists of the division, and satisfactory progress has been made in their attainment.

Division of Petrography.

Another class of criteria valuable in ascertaining the inter-relations of rockmasses and the presence therein of economically valuable minerals is found in their minute structure, discoverable only with the aid of the microscope; and in this and other countries microscopic petrography has rapidly grown to be one of the most important and promising lines of geologic research.

The microscopic examination of rocks, however, involves cutting, grinding, and mounting of slides by means of delicate and costly machinery, and in some cases the separation of the rock constituents by means of fluids of varying specific gravity. This work, as well as the examination of the material thus prepared, requires skill of a high order and the permanent employment of the specialists intrusted with the work. In pursuance of its general policy of utilizing the latest discoveries in science and art whereby geologic investigation may be promoted, a petrographic laboratory has been organized in which all work of this character is done.

Division of Mining Statistics.

The principal function of the Geological Survey is the discovery of mineral resources before unknown, and the collection of facts of importance to the industries involved. In order that this function may be properly performed it is necessary that attention shall be given to the technology of mining and that information relating to the best methods of mining different ores under various conditions shall be disseminated. Moreover, statistics of mining operations and of mineral products are essential to a thorough comprehension of the great mineral resources of the country, the mineral interests involved therein, and the industries that grow out of them. A division has been established for the performance of this work.

Division of Forestry.

Some of the most important questions of the day, from both the scientific and economic standpoints, are those involved in the relations of the soils and vegetation of the earth to the rocks which they conceal and from which the one is derived and by which the other is supported. Moreover, the distribution of the forests of this country is one of great and ever increasing importance to its people. Now, in the prosecution of the topographic surveys there is incidentally collected a vast amount of information relating to the forests of the different States in the Union which can be rendered available at small expense; and, in obedience to the statute relating thereto, there has been established a division of forestry, the functions of which are the collection and diffusion of data relating to the forests of the country, their extent and value, their proximity to routes of transportation, and our national resources in timber, lumber, ornamental woods, fuel, tan bark, and the various other forest products.

It is well known that the pineries of the Upper Mississippi and Great Lake regions, from which a large proportion of the lumber consumed in the country has been derived during past decades, are rapidly disappearing, and that their complete exhaustion is a question of only a few years. It is therefore important that the eyes of the lumber manufacturer and of the lumber consumer should be directed to other regions of supply. Among such are the wooded portions of the Appalachian Mountain system, the Adirondaek region in New York, and other considerable areas in the Eastern United States which are naturally forested with woods available in the manufacture of various kinds of lumber, and within which the land is comparatively worthless for other purposes than timber growth. But the American people have now passed that pioneer stage in the settlement and utilization of the national domain in which man can avail himself of the fruits of the land without thought for the morrow. The time has come for considering questions of reproduction of ephemeral products and

of perpetuating the natural supplies thereof. Moreover, the interests growing out of the various products of the soil are intimately but intricately connected with various other interests. It is therefore important not only to ascertain and classify the present forest resources of the country, but also to determine (1) what portions of the country can be profitably reserved for arboriculture and (2) what kinds of trees are best adapted to each region.

SCHEDULE OF SCIENTIFIC ORGANIZATION.

Although the organization of an institution devoted to original research can never be considered final, the present differentiation of labor in the Geological Survey may be regarded as definite and comparatively thorough. It is as follows:

Geography.

	In charge.
Division of Geography	Henry Gannett.
Northeastern Section of Topography	Marcus Baker.
Massachusetts Subsection of Topography.	
New Jersey Subsection of Topography	George H. Cook, State geologist.
Eastern Maryland Subsection of Topography	S. H. Bodfish.
Appalachian Section of Topography	Gilbert Thompson.
Central Section of Topography	Jno. H. Renshawe.
Western Section of Topography	A. H. Thompson.
Texas Subsection of Topography.	
New Mexico Subsection of Topography.	
Gold Belt Subsection of Topography.	
Cascade Subsection of Topography.	
Montana Subsection of Topography.	
Section of Topographic Drawing	Harry King.
Astronomic and Computing Section	R. S. Woodward.
Section of Instruments and Repairs	Edward Kübel.

Geology.

Division of Archean Geology	Raphael Pumpelly.
Atlantic Coast Division of Geology	N. S. Shaler.
Appalachian Division of Geology	G. K. Gilbert.
Lake Superior Division of Geology	R. D. Irving.
Division of Glacial Geology	T. C. Chamberlin.
Montana Division of Geology	A. C. Peale.
Yellowstone Park Division of Geology	Arnold Hague.
Colorado Division of Geology	S. F. Emmons.
California Division of Geology	G. F. Becker.
Division of Volcanic Geology	C. E. Dutton.
Mississippi Division of Geology	L. C. Johnson.
Potomac Division of Geology	W. J. McGee.

Paleontology.

Division of Vertebrate Paleontology	O. C. Marsh.
Paleozoic Division of Invertebrate Paleontology	C. D. Walcott.
Mesozoic Division of Invertebrate Paleontology	C. A. White.
Cenozoic Division of Invertebrate Paleontology	W. H. Dall.
Division of Paleobotany	L. F. Ward.
Division of Fossil Insects	S. H. Scudder.

Miscellaneous.

Division of Chemistry and Physics	F. W. Clarke.
Division of Petrography	J. S. Diller.
Division of Mining Statistics and Technology	D. T. Day.
Division of Forestry	G. W. Shutt.
Division of Illustrations	W. H. Holmes.
Division of Library and Documents	C. C. Darwin.

THE BUSINESS ORGANIZATION AND METHODS.

As already shown, the business branch of the Survey is ever subordinate to the scientific branch, and depends upon this latter branch for its character; but the operations of the business branch are carried on in accordance with a comprehensive plan to the development of which much thought has been given. The business organization and methods will be described in detail; and for the sake of clearness its operations will be presented under the systems or departments to which they logically belong rather than under the administrative divisions in which, for economic reasons, they are carried on.

THE FISCAL SYSTEM.

The principles controlling the system.

There are four fundamental considerations involved in the disbursement of the money appropriated for the Geological Survey. They are as follows:

(1) Every facility should be afforded to the scientific work of the Survey, as that is the purpose for which the money is appropriated; (2) there should be no unnecessary or extravagant expenditure; (3) the public money should be protected against deprecation; and (4) every Government agent should be required to establish the integrity of his transactions.

It is evident that exclusive attention to the facilitation of the work might lead to extravagance, while a parsimonious policy might impede the work by depriving it of necessary facilities. Proper administration demands the exercise of discriminating judgment in each individual case.

Every restrictive regulation to prevent extravagance adds to the labor of those engaged in research, adds to the amount of clerical work to be performed, and to some extent obstructs and delays the performance of scientific work. It is quite possible to so complicate the fiscal and custodial systems of a scientific bureau that its conduct shall consume a large part of its energy and correspondingly diminish its results.

It is moreover a familiar fact that regulations for the prevention of dishonest practices, while they are designed to conserve the means for the conduct of the proper work of the Bureau, are in themselves a source of expense. Protection from deprecation costs money.

The relation of the disbursing agent to the Government differs in an important respect from the relation between a private business agent and his employer. In the latter case the employer is an individual having a personal interest in the business transacted and a personal acquaintance with his agents. In the former case the employer is impersonal and cannot directly supervise the transactions of the agent. The disbursing agent is therefore essentially a trustee, and the funds in his charge are trust funds; so that it is not without reason that he is required to submit to a system of restrictive regulations which in ordinary commercial business might be regarded as onerous. The private employer assumes the integrity of his agent until the contrary is proved. The Government requires its agents to establish the integrity of all their transactions.

The Appropriations.

The funds for carrying on the work of the United States Geological Survey are appropriated by Congress in three portions: the first in the legislative act for the payment of stated salaries of the individuals composing the permanent force of the Survey; the second in the sundry civil act for the payment of stated salaries of the permanent scientific assistants; and the third also in the sundry civil act for the payment of the temporary employes in field and office, and for the various other necessary expenses of the Survey. The appropriations for the current year were, under the legislative act, \$35,540, and under the sundry civil act, \$67,700 for scientific assistants, and \$400,000 for other necessary expenses.

The funds required in the transaction of the current business of the Survey are drawn from the Treasury on requisition of the Secretary of the Interior, and are placed to the credit of the chief disbursing clerk or the disbursing agents on the books of the Treasury Department.

The requisition for funds is made upon notice from the chief disbursing officer that certain funds are required. The notice and the requisition are made upon the accompanying forms:

NOTICE.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, Ap'l 30th, 1886.

To the Director of the U. S. Geological Survey :

SIR: I have the honor to ask your attention to the following estimate of funds required by me during the second quarter, 1886:

Amount required to pay liabilities incurred, and to be incurred, to end of the quarter.....	\$13,370 00
Deducting balance that will probably be on hand at commencement of the present quarter.....	9,370 00
	4,000 00
Amount required to be remitted.....	4,000 00

Please have this sum placed to my credit in the following manner :

\$4,000.00 at the sub-treasury, San Francisco, Cal.

Very respectfully,

H. C. RIZER,
Disbursing Agt., U. S. G. S.

Approved:

C. E. DUTTON,
Chief of Volcanic Division of Geology.

[Indorsement.]

Appropriation for United States Geological Survey.
Estimate of funds required by H. C. Rizer, disbursing agent, U. S. G. S.
Time: Second quarter, 1886. Amount, \$4,000.00.

REQUISITION.

\$5,000.00.]

[No. 445.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, July 30th, 1887.

To the honorable the SECRETARY OF THE INTERIOR:

SIR: Please cause the sum of five thousand dollars to be placed to the official credit of John Doe, special disbursing agent, U. S. Geological Survey, Iowa City, Iowa, to be held subject to the check of said John Doe, with the U. S. assistant treasurer, New York, N. Y., and for which he is to be charged and held accountable under his bond dated ———, 188—, under the following heads of appropriations:

Appropriations, 1888.	Dollars.	Cents.
U. S. Geological Survey.....	5,000	00
	5,000	00

Very respectfully,

J. W. POWELL,
Director.

All the disbursing officers of the Survey are bonded. The bond of the chief disbursing clerk is \$40,000. The bonds of the disbursing agents, which vary with their liabilities, are shown in a subsequent table. The form of bond entered into by disbursing officers, with the oath and certificate, is appended hereto:

BOND.

Know all men by these presents:

That we, John Doe, of Washington, District of Columbia, as principal, and James Smith and Richard White, of Washington, D. C., as sureties, are held and firmly bound unto the United States of America in the full and just sum of ten thousand (\$10,000) dollars, lawful money of the United States, to be paid to the United States; for which payment, well and truly to be made, we bind ourselves and each of us, and each of our heirs, executors, and administrators, jointly and severally, firmly by these presents. Signed with our hands and sealed with our seals this first day of January, in the year of our Lord one thousand eight hundred and eighty-seven.

The condition of the foregoing obligation is such, that whereas the Secretary of the Interior has appointed the said John Doe to be special disbursing agent U. S. Geological Survey by commission dated January 1st, 1887, and has designated him as a special disbursing agent by letter dated January 1st, 1887, said John Doe has accepted said appointment and designation; now, therefore, if the said John Doe, shall, at all times, during his holding and remaining in said office, carefully discharge the duties thereof, and faithfully disburse all public moneys, and honestly account, without fraud or delay, for the same and for all public funds and property which shall or may come into his hands, then the above obligation to be void and of no effect; otherwise to remain in full force and virtue.

JOHN DOE. [SEAL.]
 JAMES SMITH. [SEAL.]
 RICHARD WHITE. [SEAL.]

Signed, sealed and delivered in presence of—
 WILLIAM BLACK,
 SAMUEL BROWN,
 (As to each and all of the signatures.)

OATH.

I, John Doe, of Washington, D. C., do solemnly affirm that I will support and defend the Constitution of the United States against all enemies, foreign and domestic; that I will bear true faith and allegiance to the same; that I take this obligation freely, without any mental reservation or purpose of evasion; and that I will well and faithfully discharge the duties of the office on which I am about to enter. So help me God.

JOHN DOE.

Sworn to and subscribed before me this 1st day of January, A. D. 1887.
 [SEAL.]

FRANK GREEN,
Notary Public.

CERTIFICATE OF UNITED STATES JUDGE OR ATTORNEY.

I, George Brown, U. S. attorney for the District of Columbia, do hereby certify that the persons who, as sureties, have signed the foregoing bond with John Doe as principal, are sufficient sureties for the penalty of said bond.

GEORGE BROWN.

Washington, D. C., Jan'y 1st, 1887.

[Indorsement.]

DEPARTMENT OF THE INTERIOR,
 U. S. GEOLOGICAL SURVEY,
January 1st, 1887.

Respectfully forwarded to the Secretary of the Interior for his approval.

J. W. POWELL,
Director.

DEPARTMENT OF THE INTERIOR,
Jan. 2nd, 1887.

The within bond is hereby approved and returned to the Director of the Geological Survey, to be forwarded to the First Comptroller of the Treasury.

L. Q. C. LAMAR,
Secretary.

DEPARTMENT OF THE INTERIOR,
 U. S. GEOLOGICAL SURVEY,
Jan'y 2nd, 1887.

Respectfully forwarded to the First Comptroller of the Treasury.

J. W. POWELL,
Director.

In accordance with departmental law and regulations there are two or more sureties for each bond, and each signature is attested by two witnesses. The sureties are required to justify in twice the amount of the bond by affidavit for each. The following is the form of affidavit:

AFFIDAVIT OF SURETY.

City of Washington, County of Washington, D. C., ss:

I, James Smith, one of the sureties on the official bond of John Doe as special disbursing agent, U. S. Geol. Survey, do depose and say that I am worth in unincumbered property, not exempt from execution under the laws of the District of Columbia, ten thousand (10,000) dollars and upward, after payment of my just debts and liabilities, as follows:

Real estate valued at \$10,000, and consisting of house and lot known as 1903 M st., N. W., in the city of Washington, D. C.

(Signature:) JAMES SMITH,
 (Post-office address:) 1903 M st., Washington.

Sworn to and subscribed before me this first day of January, 1887.
 [SEAL.]

FRANK GREEN,
Notary Public.

The Method of Allotment.

As stated at length in preceding paragraphs, the Survey is organized into divisions which are sometimes further divided into sections and subsections; and each division, section, or subsection is charged with certain work in a certain field.

Before the close of each fiscal year the plan for the ensuing year is formulated by the Director, after conference with the heads of the various divisions and sections of the Survey, and a stated sum is allotted to the chief of each for use in carrying forward the work of which he has charge during the fiscal year for which the appropriation was made. The chief of division or section thus assumes charge of a special subject of investigation, or a certain field of work; he is responsible to the Director, through the fiscal branch of the Survey, for confining the cost of the investigation to the sum allotted and for the propriety and economy of his expenditures. He is also responsible to the Director for the quality and quantity of the work performed, and since all reports or maps made by him are published under his name, the incentive to do all that can be done with the money allotted is of the highest nature. In large measure he is an independent investigator engaged in his ideal work, in the course of which he in part devises his own plans and develops his own problems, executing his plans and solving his problems in his own way; but his work is under the general supervision and control of the Director and his operations are limited by his allotment and by the business regulations of the Survey.

It is believed that this method of allotment in the scientific branch of the Survey is productive of good results. The chiefs of the scientific divisions are scientific men, selected for their eminence and ability and for their proficiency in the special lines of work to which they are assigned; and it is not only a reasonable presumption, but it is found by experience to be true, that investigations are pursued as economically as possible in order that results of the greatest value may be secured by the means provided.

The plan for the year's work thus developed within the Survey is submitted to the Secretary of the Interior for examination and approval at the commencement of each fiscal year.

Methods of Making Purchases.

There are three methods of making purchases: (1) Many articles are obtained through the Interior Department under its standing contracts, and the amount of the cost of such articles is transferred from the appropriations of the Geological Survey to the contingent fund of the Interior Department by certificate of the Treasurer; (2) articles are purchased from the lowest bidder under the competitive system; (3) when it is inexpedient, by reason of great delay or the cost of transportation from the general office to the field, to obtain the articles by these methods, provision is made for purchasing articles in any part of the country at current retail rates under the authority of section 3709 of the Revised Statutes, viz: "When immediate delivery or performance is required by the public exigency, the articles or service required may be procured by open purchase or contract at the place and in the manner in which such articles are usually bought and sold or such service engaged between individuals." In such case the following certificate is placed upon the voucher:

"No advertisement.

"Public exigency required the immediate delivery of the articles (or performance of the services.")

Partly in order to facilitate the keeping of accounts, and partly in the interests of economy, purchases are made mostly in the city of Washington, and provision has been made for keeping the records thereof in a simple and uniform manner; and the same methods are pursued with little modification when the purchases are made elsewhere.

Purchases are made on requisition, generally by chiefs of divisions, countersigned by the chief clerk, and sometimes formally authorized by the Director. Commonly the order is made upon a blank, upon which the article or property ordered is clearly described. Herewith is a copy of the order:

ORDER FOR PURCHASE.

[Bill to be rendered with this order attached.]

No. 3940.

U. S. GEOLOGICAL SURVEY,
July 31, 1887.

Messrs. WYCKOFF, SEAMANS & BENEDICT:

Please furnish the following articles, securely packed: Marked, 1 Remington type-writer and desk.

JAMES C. PILLING,
Chief Clerk.

Charge to allotment of McGee.

[Bill to be rendered with this order attached.]

No. 3950.

U. S. GEOLOGICAL SURVEY,
July 31, 1887.

Messrs. WYCKOFF, SEAMANS & BENEDICT:

Please furnish the following articles, securely packed: Marked, 1 Remington type-writer and desk.

JAMES C. PILLING,
Chief Clerk.

This order is made out in duplicate; the original is transmitted to the dealer and returned with the bill, and is finally filed with the purchase voucher; while the duplicate, upon which the allotment debited with the cost is specified, is preserved by the property clerk, whose special functions are described in another paragraph.

In certain cases letters are substituted for the orders made out upon printed forms; but these are press-copied and the method of procedure remains the same—the original letter being returned with the voucher, while the press copy is preserved in a book kept for that purpose.

The Vouchers.

Three classes of vouchers are used, namely, salary vouchers, traveling-expense vouchers, and purchase vouchers.

The employés of the Survey fall into three classes: the first appointed by the Secretary of the Interior upon the recommendation of the Director, as scientific specialists; the second appointed by the Secretary of the Interior in accordance with the civil-service law; and the third, comprising temporary field assistants, employed by the day or month for special duty, by the Director or other officers of the Survey.

The salary of each employé is paid upon a voucher, which consists of a bill for the service, a certificate that the service has been rendered, and a receipt for the amount specified; and before payment is made the account is certified by the chief of division or section and the receipt is signed by the payee.

The form of voucher, together with the indorsement entered upon its back by the disbursing officer by whom it is paid, is appended hereto.

APPROPRIATION FOR UNITED STATES GEOLOGICAL SURVEY.

The United States to E. P. Huff, Washington, D. C., Dr.

(Give post-office address.)

1887. July 1 to Aug. 31	For pay as draftsman from July 1st to Aug. 31st, 1887, inclusive, two months, at \$100 per month	\$200 00
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I certify that the above account is correct; that the services were rendered as herein stated, and were necessary for the work of the U. S. Geological Survey.

W. J. MAGEE,
Geologist, U. S. Geological Survey.

Received at Washington this 31st day of Aug., 1887, from J. D. McChesney, chief disbursing clerk, U. S. G. S., the sum of two hundred (200) dollars and ——— cents, in full payment of the above account, having signed duplicate receipts therefor.

(Sign here:)

E. P. HUFF,
Washington, D. C.

[Indorsement.]

Voucher No. 900, 1st quarter, 1887.
Appropriation for United States Geological Survey.
Accounts of J. D. McChesney, chief disbursing agent, U. S. G. S.
Paid to E. P. Huff for salary, amount, \$200.00.
Paid by check No. 3001 for \$200.00, dated Aug. 31st, 1887, on ass't treasurer, New York, N. Y.

In certain cases pay-rolls are substituted for the separate vouchers simply for convenience; but the pay-roll, like the voucher, consists of bill, certificate, and receipt, and is certified by the officer in charge. The forms of pay-roll and indorsement are appended.

APPROPRIATION FOR UNITED STATES GEOLOGICAL SURVEY.

We, the subscribers, hereby acknowledge to have received of J. D. McChesney, chief disbursing clerk United States Geological Survey, the sums herein specified opposite our respective names, being in full for our services at Washington, D. C., during the month of July, 1887, having signed duplicate receipts therefor.

No.	Names.	Occupation.	Time employed.	Rate of pay.		Amount received.	Signatures.	Witnesses.
				Annual.	Monthly.			
1	C. E. Martin.	Clerk	Perm: . . .	\$720 00	\$60 60	\$60 60	C. E. Martin	
2	J. C. Goode..	.....do	Temp.....	.....	75 80	75 80	J. C. Goode..	

I certify that the above pay-roll is correct as to names, amounts, and time of service rendered.

J. W. POWELL,
Director, U. S. G. S.

[Indorsement.]

Voucher No. 100, 1st quarter, 1887.
Appropriation for United States Geological Survey.
Accounts of J. D. McChesney, chief disbursing clerk, U. S. G. S.

Pay-roll.

Amount, \$135.60. Paid by the following checks:

Number.	Date.	Amount.	Depository.
19,001	July 31	\$135 60	U. S. assistant treasurer, New York, N. Y.

As in other governmental organizations, the necessary traveling and living expenses of employes engaged in the performance of field duty are paid upon presentation of suitable vouchers. In the Geological Survey the actual expenses only are paid; there are no allowances, no expenditures are commuted, and the living expenses of employes at stations are at their own cost.

The traveling-expense voucher in like manner consists of a bill, a certificate, and a receipt, which must be duly signed before the amount is paid, and each traveling-expense voucher is, moreover, accompanied by an order authorizing the journey. Chiefs of divisions are, at the beginning of each fiscal year, authorized to undertake and order such journeys as may be required in the prosecution of the work under their charge, and such authority covers their journeys for the year. The original order or a suitable extract from it accompanies each voucher. Other officers and employes of the Survey make journeys only under special orders, which are appended to the traveling-expense voucher, and each voucher is certified by the officer ordering the journey. The regulations of the Treasury Department also require that the correctness of the expense account covered by the voucher shall be certified under oath. In addition, every item of the traveling-expense voucher (except charges for transportation by rail, steamboat, or stage at current rates, or single meals *en route*) must be attested by a subvoucher signed by the person to whom payment was made.

The first page of the traveling-expense voucher bears an abstract of the account, the certificates of the employe making and of the officer authorizing the journey, the receipt, and the affidavit, while the second and later pages are arranged for the entry of items, and the indorsement of the disbursing clerk by whom the account is paid is entered upon the last page. The forms for the different pages of these vouchers are attached:

[First page.]

APPROPRIATION FOR UNITED STATES GEOLOGICAL SURVEY.

THE UNITED STATES TO EDGAR RICH, DR.

(Give post-office address.)

Date.	Designation.	Dollars.	Cts.
1887. Aug. 1-3	For actual expenses, while traveling in the discharge of duty, under orders of J. W. Powell, from Washington, D. C., to New York, N. Y., and return, as per itemized statement within.....	\$10	00

I certify that the above account is correct and just; that the detailed items charged within are taken and verified from a memorandum kept by me; that the amounts charged for subsistence were actually paid, and were occasioned by official business or unavoidable delays, requiring my stay at hotels for the time specified; that I performed the journey under the order hereto annexed with all practicable dispatch, by the shortest usually traveled route, in the customary reasonable manner, and that I have not been furnished with transportation, or money in lieu thereof, for any part of the journey herein charged for.

EDGAR RICH,
Ass't U. S. Geol. Survey

Sworn and subscribed to before me at Washington, D. C., this third day of August, 1887.

J. C. BLUEGAY,
Notary Public.

Received at Washington, D. C., this third day of August, 1887, from C. D. Davis, disbursing clerk, U. S. G. S., the sum of ten dollars and — cents, in full payment of the above account, having signed duplicate receipts therefor.

EDGAR RICH,
Ass't U. S. Geol. Survey.

I certify that the above account is correct and just, and is hereby approved.

J. W. POWELL,
Director, U. S. G. S.

[Second page.]

Itemized statement of actual and necessary expenses.

Date.		Number of sub-voucher.	Amounts.
1887. Aug. 1	Railway fare, Pennsylvania Railway, Washington, D. C., to New York, N. Y., and return.	.....	\$10 00

[Indorsement.]

Voucher No. 93, first quarter, 1887.
Appropriation for United States Geological Survey.
Accounts of C. D. Davis, disbursing clerk, U. S. G. S.

For traveling expenses.

Paid to Edgar Rich; amount, \$10.00.
Paid by check No. 1001 for \$10.00. Dated August 3rd, 1887, on U. S. Treasurer, Washington, D. C.

A transcript of a letter authorizing a chief of division to undertake and order such journeys as may be required during a fiscal year (and at the same time advising him of the amount of his allotment and the assignment of assistants in his division, and conveying such instructions regarding his work as seem to be required) is appended:

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., August 6, 1886.

Mr. G. K. GILBERT, *Geologist, U. S. G. S.:*

SIR: For the fiscal year ending June 30, 1887, there has been allotted to the Appalachian Division of Geology under your charge the sum of \$18,000, which amount shall cover all expenses of whatever nature connected with the work under your direction.

In addition to such wages as may be paid to persons temporarily employed in your work from time to time, the following regular salaries will be charged to your allotment:

Name.	Office.	Amount.
Gilbert, G. K.	Geologist	\$4,000
Geiger, H. R.	Assistant geologist	1,500
Russell, I. C.	do	1,600
Safford, J. M.	do	1,300
Stein, Robert	Clerk	900
White, I. C.	Geologist	2,000
Willis, Bailey	do	2,400

As geologist in charge of this division, you are hereby authorized to make such journeys as may be necessary for the prosecution of your official work, and you are also authorized to order your assistants to make such journeys, expenses attending the same to be paid from your allotment.

It is hoped that at the close of the coming field season there may remain unexpended from the above allotment an amount sufficient to place your party in the field early in the ensuing spring.

I am, with respect, yours, &c.,
(Signed)

J. W. POWELL,
Director.

The journey order to a subordinate officer or employé of the Survey is usually given in the form of a letter specifying the points from and to which the journey is to be made. Sometimes this letter contains specific directions as to the work to be accomplished, and is thus a "letter of instructions," an extract from which serves as the journey order. In simple cases the order is written upon a blank form provided for the purpose. Such blanks are numbered in regular series, and are bound in books with stubs, upon which memoranda of the orders are kept by chiefs of division issuing them. Samples of both of these forms are appended:

Stub to be retained.

No. 501.]

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., July 1st, 1887.

Order to J. C. Ramer to proceed from Washington to Boston, Mass., given by A. H. Thompson, geographer, U. S. G. S.

Remarks.—If practicable, please accompany Mr. Martin Smithson.

No. 501.]

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., July 1st, 1887.

Mr. J. C. RAMER,
U. S. Geol. Survey :

You will proceed by the shortest practicable route from Washington, D. C., to Boston, Mass., on duty connected with this Survey, keeping a memorandum of your actual necessary expenses incurred on said journey, and attaching this order to your vouchers for said expenses, with hotel bills, in duplicate, appended.

A. H. THOMPSON,
Geographer, U. S. G. S.

The subvouchers used in connection with traveling-expense vouchers are so arranged that they may be used in lieu of the vouchers proper. Accordingly, they consist of bill, certificate, and receipt, together with form on the back for the indorsement of the disbursing officer by whom they are paid. They may also be used as purchase vouchers. The forms are appended :

APPROPRIATION FOR UNITED STATES GEOLOGICAL SURVEY.

The UNITED STATES to E. P. DILLER, Dr. :

(P. O. address:) *Harrisburg, Pa.*

For board and lodging, for Chas. Wells, Aug. 1st to Aug. 15th, 1887, fifteen days, at \$2, \$30 00.

Received at Harrisburg, Pa., this 15th day of August, 1887, from Chas. Wells, disbursing agent, the sum of thirty dollars and 00 cents, in full payment of the above account, receipts having been signed in duplicate.

(Sign here.) E. P. DILLER.

I certify that the above account is correct; that the articles herein enumerated have been received or services performed; that they were necessary for, and have been or will, be applied to, the U. S. Geological Survey; and that, to the best of my knowledge and belief, the prices were reasonable and just.

(Sign in duplicate.) CHAS. WELLS,
Ass't, U. S. G. S.

[On margin.]

I certify that the articles herein named will be accounted for on my returns for the _____ quarter, 188-
_____ Custodian.

[Indorsement.]

Voucher No. 39, 1st quarter, 188-.

Appropriation for United States Geological Survey.

Accounts of J. D. McChesney, chief disbursing clerk, U. S. G. S.

Paid to E. P. Diller for board and lodging, amount, thirty dollars (\$30).

Paid by check No. 9003 for \$30.00, dated Aug. 15th, 1887, on ass't treasurer, New York, N. Y.

Each purchase voucher likewise consists of bill, certificate, and receipt. The bill and receipt are signed by the party from whom the purchase is made, and the certificate setting forth that the account is correct and just, that the purchase was necessary, and that the articles have been received and applied to the use of the Survey, is signed by the officer in charge. Each purchase voucher bears, in addition, the certificate of a duly authorized custodian that the property purchased has been transferred to his custody. The forms for the purchase voucher and for the disbursing officer's indorsement upon its back are appended :

APPROPRIATION FOR UNITED STATES GEOLOGICAL SURVEY.

The UNITED STATES, to W. B. MOSES & SON, *Washington, D. C.*, Dr. :

(Give post-office address.)

Date.		Cost.
1887. July 12	To one office desk (walnut), 5x8, double	\$60 00

Received at Washington, D. C., this 12th day of July, 1887, from J. D. McChesney, chief disbursing clerk, U. S. G. S., the sum of sixty dollars and — cents, in full payment of the above account, having signed duplicate receipts therefor.

(Sign here.) W. B. MOSES & SON.

I certify that the above account is correct; that the articles herein enumerated have been received or services performed; that they were necessary for, and have been or will be, applied to the work of the U. S. Geological Survey; and that, to the best of my knowledge and belief, the prices paid were reasonable and just.

J. W. POWELL,
Director U. S. Geological Survey.

[On margin.]

I certify that the articles herein named will be accounted for on my returns for the 1st quarter, 1887.
J. E. ALLEU, *Custodian.*

[Indorsement.]

Voucher No. 36, 1st quarter, 188-.

Appropriation for United States Geological Survey.

Accounts of J. D. McChesney, chief disbursing clerk, U. S. G. S.

Paid to W. B. Moses & Son, for office desk (one); amount, \$60.00.

Paid by check No. 3091, for \$60.00, dated July 12th, 1887, on U. S. Treasurer, Washington, D. C.

It will be observed that the purchase voucher bears a certificate from the custodian of property (whose functions are set forth in another paragraph) who thereby assumes responsibility for the property purchased.

Vouchers properly signed and certified are paid upon presentation to the disbursing officer for the division. They are then audited in the office of the chief disbursing clerk, and finally examined, approved, and certified by the director, after which they are transmitted through the Secretary of the Interior to the Treasury Department for final settlement. It is the plan of the the Director to have the accounts of the disbursing officer substantially audited in his own office, where all the circumstances affecting their integrity and propriety are best known, and to have every expenditure so fully explained on the voucher or accompanying papers that the accounting officers of the Treasury may have all necessary pertinent facts submitted to them. Thus far in the history of the Survey every voucher which has been accepted by the chief disbursing clerk and approved by the Director has been found satisfactory to the Comptroller of the Treasury and has been allowed in full.

All vouchers are made in duplicate. The original set is forwarded by the chief disbursing officer through the Secretary of the Interior to the Auditor of the Treasury, and used in making settlements, and the duplicate set is retained by the officer making the disbursement.

It will be observed that the voucher system appears somewhat cumbersome, particularly in the case of vouchers for traveling expenses; but the plan upon which they are framed is simple, and some detail is unavoidable in carrying out the principles (1) that the documentary authority and responsibility for every transaction shall coincide with the actual authority and responsibility, and (2) that every agent of the Government shall be required to establish the integrity of his transactions.

Administrative authority is necessarily delegated to subordinates in many cases; but in such case it is not the method of the Survey to permit the documentary authority to remain by conventional fiction with the chief. Accordingly, no person is required to certify to the correctness of a voucher unless the expenditure was made under his immediate supervision, or he has every means of knowing the facts in regard to it. In the practice of the Survey the chief of a division or party authorizes a journey by a subordinate; the subordinate performs the journey, taking receipts from outside parties for all expenditures except those concerning which the superior officer is informed or may readily inform himself (regular fares and meal rates, &c.), thereby establishing the integrity of each transaction by collateral evidence; and being perfectly familiar with the circumstances of the entire journey, he makes oath to the correctness of his account so far as the details of the voucher are concerned. The chief of division or party who authorizes the journey is then only required to satisfy himself and to certify that the routes of travel coincide with the instructions, that the time occupied was not excessive, that the rates charged are current, and in a general way that the account is correct and just; but since he is responsible for the journey, he is required to certify that it was necessary. The proper disbursing officer, after finding that all regulations have been complied with, indorses and pays the account, thus assuming responsibility for its technical accuracy; and finally the Director scrutinizes the voucher, and, if his judgment confirms that of the disbursing officer as to its accuracy and that of the chief of the division or party as to its necessity, certifies it, thus assuming general responsibility to the Federal Treasury for the entire transaction. But the actual responsibility at every stage is fixed by documentary evidence; the Director is protected by the indorsements of the disbursing officer and chief of division, one of whom is bonded and the other as effectively bound by his scientific reputation and desire to accomplish maximum results with the money at his disposal, as already set forth; the disbursing officer is protected by the various persons whose signatures are affixed to the document; the chief of di-

vision is protected in turn by the certificate and oath of the subordinate; and the subordinate is protected by the parties with whom his business was transacted and whose signatures are affixed to the subvouchers.

Transportation upon Bonded Railroads.

The special laws and departmental regulations relating to transportation of Government agents and property over railroads which have received subsidies and land grants are complex, and are modified from time to time as the status of each subsidy or grant changes. Accordingly, provision has been made for securing transportation for members of the Survey force over "bonded" railroads by means of transportation requests issued by the Department of the Interior. These requests are accepted by railroad companies in lieu of cash, and are transmitted by railroad agents through the Secretary of the Interior to the chief disbursing clerk, by whom they are recorded and approved and finally transmitted to the Treasury Department for settlement. Moreover, it is sometimes desirable to reduce to a minimum the sums advanced by assistants for necessary traveling expenses, for which they may not be reimbursed for weeks or even months; and provision has accordingly been made for securing transportation upon similar requests directed to railroads that are not bonded. Such requests are transmitted through the Interior Department to the central office of the Survey, where they are settled.

Transportation requests are made upon forms signed in blank by the Secretary of the Interior and countersigned by the Director. They are numbered in a continuous series, and are charged against the officers to whom they are issued in a book kept for that purpose by the chief disbursing clerk. When such a request is used a certificate that transportation has been furnished upon it is filled out by the person receiving the transportation, and at the same time a coupon certificate of like tenor is mailed to the Secretary of the Interior and finally transmitted to the central office of the Survey, where it is recorded and filed. In addition the employé receiving transportation on such requests is required to communicate the fact of such transportation and the value thereof to the disbursing officer for the division by whom all such transactions are reported in the account with the allotments for the division.

A copy of the form for transportation request, together with the coupon acknowledgment, the certificate of the Director upon the back, and the stub, which is permanently preserved in the office of the chief disbursing clerk, are appended:

TRANSPORTATION REQUEST.

(The holder will send this coupon by first mail to the Secretary of Interior.)

Government request, account of Geol. Survey Office, No. 9, dated Jan. 1st, 1887, in favor of James Black and — other person, with — pounds of extra baggage, from Washington to Chicago, Ill., has this first day of Jan'y, 1887, been signed by me and delivered to the agent of Pennsylvania Railroad Company at Washington.

JAMES BLACK,
U. S. Geol. Survey.

No. 370.]

Not valid unless countersigned.]

(Not transferable.)

GOVERNMENT REQUEST FOR TRANSPORTATION.

UNITED STATES DEPARTMENT OF THE INTERIOR.

The Pennsylvania Railroad Company will please transport James Black and — other person, with — pounds of extra baggage, from Washington, D. C., to Chicago, Ill., *en route* from Washington to San Francisco, for which said company will be reimbursed, in accordance with existing law, from the — appropriation for U. S. Geological Survey.

Countersigned.

_____,
Director.

NOTE.—The officer countersigning will fill out complete; and the holder of the request, upon presenting it for transportation, will date, fill out in full, and sign in ink the certificate below.

I certify, on honor, that the Pennsylvania Railroad Company has furnished transportation for myself and — other person, and — pounds extra baggage, from Washington to Chicago, in compliance with the above request.

No. 370.] \$13.00.

[On reverse side.]

(This certificate will be signed by the officer countersigning the within request.)

I certify that the transportation within requested is on account of a journey authorized by myself, under date of Jan'y 1st, 1887.

_____,
Director.

No. 370.]

Good for six months from date.

January 1st, 1887.

Pennsylvania Railroad Company.

In favor of James Black and — other person, with — pounds extra baggage.

From Washington to Chicago, Ill., *en route* from Washington, D. C., to San Francisco, Cal., under authority from J. W. Powell, of date Jan. 1, '87.

— appropriation.

Good only for six months from date.

WASHINGTON, D. C., Jan'y 1st, 1887.

_____,
Secretary.

WASHINGTON, D. C., Jan. 1, '87.

JAMES BLACK,
U. S. Geol. Survey.

WASHINGTON, D. C., Jan. 1st, 1887.

After transportation has been issued upon such a request the agent of the railroad company transmits his bill for the amount of the transportation, which is then transferred to a suitable form provided for the purpose and sent to the general office of the railroad company for signature, and upon its return the account is paid. The bill prepared for the signature of the duly authorized officer of the railroad company is thus a voucher for transportation, and, like the ordinary traveling-expense voucher, it consists of a bill for the transportation, a receipt for the amount paid therefor, and a certificate that the account is correct and just and that the transportation was necessary for the work of the Survey—the receipt being signed by the officers of the transportation company, and the certificate by the officer of the Geological Survey authorizing the journey. A copy of the form used for this purpose is attached:

APPROPRIATION FOR UNITED STATES GEOLOGICAL SURVEY.

The United States to Pennsylvania R. R. Co., Dr.

For transportation, as follows:

Date.	No. of request.	From—	To—	No. of men.	Rate per man.	Amount paid.
1887. Jan. 1	370	Washington, D. C.....	Chicago, Ill.....	1	\$13 00	\$13 00
						13 00

Received at Washington, D. C., this 20th day of January, 1887, from Jno. D. McChesney, chief disbursing clerk U. S. G. S., the sum of thirteen dollars and ——— cents, in full payment of the above account, receipts having been signed in duplicate, and I certify that the rates charged in the above account were the current and lowest rates charged the public when the tickets were issued.

(Sign here.)

PENNSYLVANIA R. R. CO.,
Per J. C. BROWN, *Treasurer.*

I certify that the above account is correct and just; that transportation was furnished as above stated, and that it was necessary for the work of the U. S. Geological Survey.

J. W. POWELL,
Director U. S. Geological Survey.

[Indorsement.]

Voucher No. 39, 1st quarter, 1887.
Appropriation for United States Geological Survey.
Accounts of Jno. D. McChesney, chief disbursing clerk U. S. G. S.
Paid to Pennsylvania R. R. Co., for transportation of assistants.
Amount, \$13.00; paid by check No. 331, for \$13.00, dated Jan. 20th, 1887 on U. S. Treasurer, Washington, D. C.

Provision is also made for the transportation of property in accordance with the system established by the Quartermaster-General of the Army. When an officer of the Survey desires to transport bulky property he either turns it over to a quartermaster, after properly addressing the parcels, and requests him to forward it, or, if there is no quartermaster at the point of shipment, he writes to the one nearest that point, describing the shipment, and requesting duplicate bills of lading. On receipt of these the freight is shipped, and the bills of lading, after signature by the agent of the railroad, are returned to the quartermaster.

The request for transportation of property addressed to the nearest quartermaster is made upon the accompanying form. The form of shipping label used by the Survey is also appended; on its reverse are printed directions for packing and shipping.

At the time the property is shipped an announcement of the shipment is mailed upon a penalty card provided for the purpose, a copy of which is appended. A form printed upon a penalty card is also provided for announcing the receipt of the property transferred. It also is appended.

REQUEST FOR BILLS OF LADING.

DEPARTMENT OF THE INTERIOR, UNITED STATES GEOLOGICAL SURVEY,
Fort Wingate, N. Mex., June 26, 1887.

To the U. S. Quartermaster at Fort Wingate, N. Mex.:

SIR: I have ready a shipment of public property belonging to the United States Geological Survey, which I desire to forward from Wingate, N. Mex., to Washington, D. C., in accordance with the provisions of General Orders No. 9, issued by the Adjutant-General, U. S. Army, February 7, 1880. It consists of the following parcels: One box containing specimens of rocks, &c., and weighs, approximately, 95 pounds.

The parcels are marked as follows: Director U. S. Geological Survey, Washington, D. C.

I have the honor to request that you send me duplicate bills of lading therefor, freight to be collected from the U. S. Geological Survey through the Secretary of the Interior. The bills of lading will be returned to you after signature.

Very respectfully,

A. H. THOMSON,
Geographer U. S. G. S.

SHIPPING LABEL.

U. S. GEOLOGICAL SURVEY.

TO THE DIRECTOR U. S. GEOLOGICAL SURVEY, WASHINGTON, D. C.

No. 30. Date of letter or invoice, June 27, 1887. Weight, 95 pounds. Rate per 100 lbs, 50 cents. Contents, specimens.	Deliver to A. H. Thomson, Geol. Survey, Washington.
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Shipped from Wingate, N. M.
 By A. H. Thomson, in charge of U. S. Geol. Survey Camp.

[Reverse.]

NOTE.—All boxes should be carefully packed, and the lids, when practicable, fastened with screws. All the packages shipped by each party should be numbered in consecutive order on the invoices, and special care should be taken to mark on each label, in proper place, the date of invoice or letter of advertisement and number of package. Shipments to be by freight unless otherwise specially authorized. (See chapter 3, page 3, of the Regulations.) Duplicate labels to appear on each box, one on the top, a second on side or end.

NOTICE OF SHIPMENT.

[Address side of card.]

Department of the Interior,
 U. S. GEOLOGICAL SURVEY,
 OFFICIAL BUSINESS.

Penalty for private use, \$300.

To the DIRECTOR U. S. GEOLOGICAL SURVEY,
 Washington, D. C.

[Reverse side of card.]

U. S. GEOLOGICAL SURVEY,
 Canton, Ohio, June 27 1887.

SIR: I have shipped one box, Nos. 1 to — inc., containing 1 barometer, No. 2701.

[If specimens, collector's name and address.]

Conveyance, Adams Express; charges, \$—.
 Very respectfully,

C. M. BELL,
 Ass't, U. S. G. S.

To the DIRECTOR.

RECEIPT FOR SHIPMENT.

[Address side of card.]

Department of the Interior,
 U. S. GEOLOGICAL SURVEY,
 OFFICIAL BUSINESS.

Penalty for private use, \$300.

C. M. BELL,
 U. S. GEOL. SURVEY,
 Canton, Ohio.

[Reverse side of card.]

U. S. GEOLOGICAL SURVEY,
 Washington, D. C., July 3, 1887.

SIR: I have received one box, Nos. 1 to — inc., containing 1 barometer, No. 2701,

[If specimens, collector's name and address.]

from yourself at Canton, Ohio.
 Conveyance, Adams Express; charges, \$—.
 Very respectfully,

JAMES C. PILLING
 Chief Clerk, U. S. G. S.

To the DIRECTOR.

The accounts of the transportation of property are transmitted by quartermasters to the War Department, and thence to the chief disbursing clerk of the Survey, by whom they are approved and recorded and finally transmitted to the Treasury for settlement.

The Disbursing Officers and their Specific Duties.

The fiscal operations of the Survey are in charge of a chief disbursing clerk ; but it has been found expedient to employ a number of disbursing agents to act under his general direction. There are at present twelve disbursing agents in the Survey ; three of these are employed exclusively in the work pertaining to the fiscal branch of the Survey, three (in addition to the Director) are geologists, two are topographers, one is an assistant geologist, one is the chief clerk, and one is a geographer, who merely add the labor of disbursing to their other duties.

The chief disbursing clerk and each disbursing agent has an independent account with the Treasury ; but all requisitions for funds, and all quarterly statements accompanied by vouchers, pass through the office of the chief disbursing clerk, and an account is kept with the annual appropriations and with each disbursing agent.

The following books are used in keeping a record of the office transactions, and indicate the character of the business in the office of the chief disbursing officer and the methods of recording it, viz: (1) A book of letters sent and received, comprising all correspondence relating to the fiscal operations of the Survey : (2) a ledger, in which are kept the accounts with the annual appropriations and with the disbursing agents ; (3) a book of requisitions for advances of money from the Treasury ; (4) an allotment book, containing an account with each chief of division, in which he is debited with the amount allotted to him and credited with his expenditures ; (5) a record of vouchers paid, into which are copied in detail all vouchers paid by the disbursing agents, and which accordingly contains a complete record of each fiscal transaction of the Survey ; (6) a record of bonded railroad accounts, in which are kept the accounts rendered by railroads for transportation of persons and property in accordance with section 5260 of the Revised Statutes ; (7) a record of transportation requests issued, in which are recorded the requisitions for transportation of property and persons traveling on public duty over bonded railroads in accordance with the statute last mentioned ; (8) a classification of expenditures, in which the various expenditures of the Survey are arranged in schedules ; (9) a balance book, in which are kept the quarterly accounts of disbursing officers of the Survey ; and (10) a series of books of property received and shipped, containing a record of all collections, specimens, instruments, and other property received and transmitted.

Sample leaves from the second, fourth, fifth, sixth, seventh, and eighth of these books are appended. The book of letters sent and received is described elsewhere ; the book of requisitions consists of bound duplicates of a form already introduced ; the balance book is kept in a part of the ledger reserved for the purpose ; and the general property books are described in another paragraph.

LEDGER.

U. S. Geological Survey in account with United States.

[Appropriation 1898-'99.]

DR.

Date.		Salaries, office Director Geological Survey.	Expenses Geological Survey.					Total.
1899. September 1	To amount of account rendered by Central Pacific R. R. Co. for transportation of freight during months of July and August, 1899.....		\$200 00					\$200 00
September 10	John Doe, S. P. D., Req. 542....	\$3,000 00	2,000 00					5,000 00

CR.

1899. July 1.....	Appropriations for fiscal year, acct. approved August 10, 1898.....	\$20,000 00	\$500,000 00					\$520,000 00
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ALLOTMENT BOOK.

Allotment of S. W. section of topography, for fiscal year ending June 30, 1899, John Doe in charge.

DR.

Date of allotment.	Purposes for which made.	Amount.
July 15 1899.	Salaries and expenses..... John Doe, at \$1,200 per annum..... W. Willson, at \$600 per annum..... J. Jackson, at \$40 per month Henry Furguson, at \$25 per month.....	\$2,000

CR.

Date of payment.	No. of voucher.	To whom paid.	For what paid.	By whom paid.	Amount.
1899.					
Aug. 1.....	45	John Doe...	Salary, July, '99.	N. Nooton ..	\$100 00
" 15.....		John Doe...	Requisition No. 542.....		5,000 00
" 20.....	90	W. Willson	Misc'l. field expenses.....	N. Nooton ..	55 73

VOUCHER RECORD.

Record of vouchers paid from appropriation U. S. Geological Survey, fiscal year 188-, for the 4th quarter, 1889.

[By whom paid, John Doe; and where, Denver, Col.]

No. of voucher	Date of purchase.	Date of payment.	From whom purchased or rendered, and where.	Articles or services.	Amount.	Total
40	Oct. 10	Dec. 5	John Smith, Denver, Col..	Hay for Survey animals; 100 pounds hay at ½c. per pound.	\$0 50	\$0 50

BONDED RAILROAD ACCOUNT.

William Jones, geologist, in account with transportation requests.

DR.

Date.	Number.		
	From—	To—	
1887. July 31	501	505	

CR.

Date.	Number of request.	To whom issued.	From—	To—
1887. Aug. 5	501	Richard Roe.....	Chicago, Ill.....	Saint Paul, Minn.

Railroad.	Cost of fare.	Date when audited or settled.	Number turned in at main office.		Number canceled.	
			From—	To—	From—	To—
C. M. and S. P	\$10 00	1887. Aug. 15	503	505	502	502

RECORD OF TRANSPORTATION REQUESTS.

[Property.]

Date of Government order.	Date of way-bill.	Number of way-bill or order.	From—	To—	Article.
1887. January 10.	1887. January 10.	45	Cheyenne, Wyo ...	Council Bluffs, Ia.	5 boxes specimens.

Weight.	Rate.	Amount.	Miles.		Amount aid.	Amount non-aid.	Total.	Remarks.
			Aid.	Non-aid.				
700	\$1.00	\$7.00	100	600	\$1.00	\$6.00	\$7.00	⁵⁷⁶ / ₁₈₈₇ D of A.

[Persons.]

Date of order.	No. of order.	Issued by—	Favor of—	From—	To—	Amount
1886. August 1.	575	John Doe.....	Peter Roe	Chicago, Ill...	Council Bluffs, Iowa ..	\$11 50

Accounts.		Transportation furnished.	Remarks.
Received.	Forwarded.		
1887. January 10	1887. February 1	1887. August 5	⁷⁵ / ₁₈₈₇ D. of A.

CLASSIFICATION OF EXPENDITURES.

Classification of expenditures made from appropriation for U. S. Geological Survey, fiscal year 1888-'89.

By whom made.	Account current.	Number of voucher.	Schedule A.—Services.	Schedule B.—Traveling expenses.	Schedule C.—Transportation of property.
John Doe, special disbursing agent.	Second quarter, 1899...	1	\$2 00	\$5 00	\$10 00

Each disbursing agent reports to the Director weekly his total disbursements, the balance of funds in his personal possession, and the balance in United States depositories. These weekly statements are made upon forms of which a copy is appended. Each bears upon its back instructions for use, and a blank for suitable indorsement.

WEEKLY REPORT.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Topeka, Kans., August 3, 1887.

SIR: I have the honor to report my balance of public funds on deposit and in hand at close of the week ending July 30, 1887, as follows:

Balance as shown by report for week ending July 23, 1887	\$4,000 00	
Received since last weekly report.....	00	\$4,000 00
Expendd during the week.....	766 30	
Transferred and deposited to the credit of U. S. Treasurer.....		766 30
.....		00
Total amount for which I am accountable		<u>3,233 70</u>

which is accounted for as follows:

DEPOSITED WITH—

Assistant Treasurer United States, New York, N. Y.....	\$2,753 70
.....	00
In checks or drafts	00
In personal possession, by authority from Treasury Department, April 4, 1885	480 00

WITH OTHER PARTIES, VIZ:

.....	00
-------	----

IN TRANSITU:

From	0 00
To.....	.....

Total as above	3,233 70
----------------------	----------

Very respectfully,

JOHN DOE,
Special Disbursing Agent.

To the DIRECTOR OF THE U. S. GEOLOGICAL SURVEY,
Washington, D. C.

The chief disbursing clerk prepares weekly an abstract of the returns of the various disbursing agents, which also is submitted to the Director. The blank used for this purpose is attached:

WEEKLY ABSTRACT.

	Alfred M. Rogers, dis- bursing clerk.	
Depository.	Week ending July 30, 1887.	
	Report by officer.	Report by depository.
Treasurer of the United States, Washington, D. C	\$459 73	\$499 10
Assistant Treasurer United States, New York, N. Y.....	275 10	500 25
Depository.	John H. Renshawe, disbursing agent.	
	Week ending July 30, 1887.	
	Report by officer.	Report by depository.
Assistant Treasurer of the United States, San Francisco, Cal	\$1,349 81	\$1,575 85
First National Bank, Denver, Col	592 23	592 23

The disbursing officers also render quarterly accounts to the Treasury, accompanied by the vouchers paid during the quarter, and by an abstract of the payments made on the vouchers. The forms used in preparing these accounts-current and the abstracts of disbursements are appended:

ACCOUNT-CURRENT.

[Appropriation for United States Geological Survey.]

Abstract of disbursements made by John Doe, disbursing agent, U. S. Geological Survey, during the third quarter of 1898.

No. of voucher.	To whom paid.	For what paid.	Amount.
1	John Smith	Salary for July, 1898.....	\$200
2	Will Jones	Field expenses July, 1898.....	299
	Total		499

QUARTERLY ABSTRACT.

[Appropriations for United States Geological Survey, fiscal year ending June 30, 1899.]

DR. *The United States in account current with John Doe, disbursing agent.* CR.

1898.			1898.		
Sept. 30	To amount expended during the third quarter of 1898, as per vouchers and abstracts herewith	\$499	July 1	Due the United States as per account-current rendered for the second quarter of 1898.....	
Sept. 30	To balance due the United States carried to new account.....	1	July 3	By Treasury draft No. 42, on Interior civil warrant No. 76.	\$500
		500			500

I certify that the foregoing is a true account of all money received by me from the appropriation for United States Geological Survey, not heretofore accounted for, and that the disbursements have been faithfully made.

JOHN DOE,
Disbursing Agent, U. S. Geological Survey.

Dated at Washington, D. C., September 30, 1898.

Communications to employes absent from the headquarters of disbursing officers, to whom funds are transmitted by mail, and to dealers or carriers who have submitted bills, are simple, and are made upon suitable forms, copies of which are attached:

LETTER TRANSMITTING CHECK.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., July 10, 1887.

E. M. WHITFIELD,
U. S. Geological Survey, Flagstaff, Ariz.:

SIR: I transmit herewith my official check No. 90361, on the assistant treasurer at Saint Louis, Mo., payable to your order, for the sum of \$100 in payment of your account for traveling expenses from Washington, D. C., to Flagstaff, Ariz.

Please acknowledge receipt.
Very respectfully,

C. D. DUNN,
Disbursing Agent, U. S. G. S.

(1 inclosure.)

LETTER TRANSMITTING ACCOUNT.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., July 10, 1887.

E. M. WHITFIELD,
U. S. Geological Survey, Flagstaff, Ariz.:

SIR: I herewith inclose an account in favor of yourself for traveling expenses, Washington, D. C., to Flagstaff, Ariz., amounting to \$100.

Please sign the receipts, and return vouchers to this office for settlement.
Respectfully,

JOHN D. MCCHESENEY,
Chief Disbursing Clerk, U. S. G. S.

(2 inclosures.)

Although salaries are generally paid monthly, semi-monthly payments are sometimes made; and in such cases receipts are taken for the semi-monthly payments. The following blank is used for the purpose:

SEMI-MONTHLY SALARY RECEIPT.

\$50.00.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., Jan. 15, 1887.

Received from Jno. D. McChesney, chief disbursing clerk, U. S. G. S., the sum of fifty ¹⁰⁰/₁₀₀ dollars, on account of salary due me as stenographer from January 1st, 1887, to January 31st, 1887, at \$1,200 per annum.

Check No. Cash.

JAMES BLACK.

Salaries of employés in Washington are generally paid in cash—the exact amounts being counted out by two clerks and sealed in heavy manila paper envelopes bearing a statement of contents, made upon the accompanying form:

SALARY ENVELOPE.

U. S. GEOLOGICAL SURVEY.	For month of January, 1887.
\$100 monthly salary.	
50 less semi-monthly.	
<hr/> 50 balance due.	
JAMES BLACK.	

Payments on salary and other vouchers sent to headquarters of disbursing officers from distant points are usually made upon checks, which are transmitted by registered mail.

The chief disbursing clerk of the Survey is Mr. John D. McChesney. He has an office in the building occupied by the Survey in Washington, and employs eight assistants. The disbursing agents, the amount of the bond of each, the divisions or sections for which they disburse, and their headquarters are indicated in the accompanying table.

Special disbursing agents of the Survey.

Name.	Amount of bond.	Position.	Division or section.	Headquarters.
Powell, J. W.	\$10,000	Director	General	Washington.
Christie, P. H.	20,000	Topographer	Appalachian section of Topog.	Not fixed.
Davis, C. D.	10,000	Assistant geologist.	.....	Massachusetts.
Gilbert, G. K.	10,000	Geologist	Appalachian division of Geol.	Washington.
Hague, Arnold	6,000	.....do	Yellowstone Park division of Geol.	Mammoth Hot Springs, W. T.
Hawkins, R. R.	10,000	.....do	California division of Geol.	San Francisco.
Karl, Anton.	5,000	Topographer.	Northeastern section.	Washington.
Kerr, Mark B.	20,000	Disbursing agent ...	Cascade section of Topog.	Not fixed.
Pilling, J. C.	10,000	Chief clerk	Western section of Topog.	Do
Renshawe, John H.	10,000	Geographer.	Central section of Topog.	Do
Rogers, Alfred M.	10,000	Disbursing agent ...	Rocky Mountain division of Geol.	Denver.
Taylor, A. O'D., jr	12,000	Special disbursing agent.	Division Archean geology.	Newport, R. I.

THE CUSTODIAL SYSTEM.

The Principles of the System.

The fundamental principles out of which the custodial system of the Survey has grown are related to those underlying the fiscal system. They are as follows: (1) Every means should be adopted to prevent extravagance and reckless use of the property of the Survey; (2) every agent of the Survey should be required to account for all property in his custody; and (3) responsibility should not be merely documentary but actual.

As already set forth, the chiefs of scientific divisions have every incentive to secure economic administration of the business affairs of their divisions; they are responsible for the property under their control; and their subordinates are responsible to them. But in order to definitely fix the responsibility for every article in the possession of the Survey, there is a class of agents, made up mainly of chiefs of divisions and their scientific assistants who are designated "custodians of property," who are charged with the custody of, and are held responsible for, all property owned by the Survey; and this class of agents is made so large that each individual may have personal knowledge of every article with which he is charged. In order to avoid dual responsibility on the part of the same individual in different roles, the two classes of business officers—disbursing agents and custodians of property—are made up as far as practicable of different individuals.

The Methods Employed.

All property acquired by the Survey is placed in the hand of the custodians of property, who are held responsible therefor. The custodians incur responsibility through the certificates on the purchase vouchers, as already noted; and there is a system of records by which the responsibility is constantly fixed and by which accounts relating to all property in the possession of the Survey are kept in convenient form.

Property is classed as expendible and non-expendible. The first class comprises articles which are either consumed (*e. g.*, food and forage), quickly worn out in service (*e. g.*, certain tools), or perishable (*e. g.*, certain laboratory apparatus). The second class comprises articles which with ordinary care last for considerable periods. The two classes are treated alike in the records, save in their ultimate disposition.

The various articles required in the prosecution of the work of the Survey have been classified under these two heads in the printed "Regulations" issued in 1882. Among the schedules of authorized expenditures enumerated in this document, nine comprehend property required in the prosecution of the work of the Survey, viz: (1) "Field subsistence"; (2) "field supplies"; (3) "stationery and drawing material," and (4) "office supplies and repairs," which are expendible; and (5) "field material"; (6) "instruments," and (7) "office furniture," which are non-expendible; and (8) "laboratory material," and (9) "photographic material," which are in part expendible and in part non-expendible.

Both classes of Survey property are sometimes transferred from district to district, and from one custodian to another. This is done by means of an invoice and receipt, in which the property is so described that every article may be readily identified. The invoice is filed with the orders and purchase-vouchers by the custodian into whose hands it passes; the receipt is filed by the custodian who surrenders the property; and a record of the transaction is entered in the returns of each custodian. Copies of the invoice and receipt used for this purpose are appended:

INVOICE OF PROPERTY.

UNITED STATES GEOLOGICAL SURVEY.

Invoice of public property transferred by John Smith, custodian of the U. S. Geological Survey at Washington, D. C., to George Black, custodian at San Francisco, Cal., on the 29th day of June, 1887.

Number.	Quantity.	Articles.
..... { 1	1 pr.....	Saddle-bags.
..... { 2	1.....	Geological hammer.

I certify that I have this day transferred to George Black the above specified articles.

JOHN SMITH,
Custodian, U. S. Geological Survey.

(Sign in duplicate.)

RECEIPT FOR PROPERTY.

UNITED STATES GEOLOGICAL SURVEY.

Received at Washington, D. C., this 29th day of June, 1887, from John Smith, custodian, the following-named articles :

Number.	Quantity.	Articles.
..... { 1	1 pr.....	Saddle-bags.
..... { 2	1.....	Geological hammer.

GEORGE BLACK,
Custodian, U. S. Geological Survey.

(Sign in duplicate.)

Each custodian of property makes a quarterly return of property, in which, as will appear from the accompanying blank, all articles in his custody are enumerated and described, and full information is conveyed, both as to the condition of the property in his hands and as to the disposition of all property transferred or expended during the quarter.

PROPERTY RETURN.

[First page.]

Quarterly return of United States Geological Survey property for the quarter ending June 30, 1886, rendered by John Smith.

[To be made in duplicate.]

[Second page.]

Return of United States Geological Survey property 2nd quarter of 1886.

List of articles.	Designation, as lbs., galls., No., &c.	On hand as per last return.	Received during the quarter.	Total to be accounted for.	Disposed of during the quarter.	On hand — day of —, 1886.	Remarks.
NOTE.—As many lines to be allowed for each article as will give sufficient space in the column of "Remarks"							NOTE.—In this column will be stated, opposite the name of each article, whether what was "received during the quarter" was by purchase or otherwise, and whether paid for or not. Also, whether what was "disposed of" was expended or transferred, or otherwise disposed of. If expended, the object of expenditure to be stated; if transferred, the person to whom, and the authority; if disposed of otherwise than by expenditure or transfer, the authority and manner to be stated.
<i>Schedule D.</i>							
Meat, cured	lbs.	51	51	51	.....		Purch. v. 159., expended in subsisting field party.
Meal, corn	lbs.	20	20	20	.....		Purch. v. 159., expended in subsisting field party.
Sugar.....	lbs.	60	60	60	.....		Purch. v. 159, 203, expended in subsisting field party.
Tea.....	lbs.	3	3	3	.....		Purch. v. 103, 115, 203, expended in subsisting field party.
<i>Schedule E.</i>							
Ax handles	No.	4	4	4	.....		Purch. v. 14, expended in repairing axes.
Nails	lbs.	10	10	10	.....		Purch. v. 16, expended in repairing field outfit.
<i>Schedule F.</i>							
Axes	No.	6	6	6	.....	6	
Hammer, Geol ...	pr.	1	1	1	.....		Invoiced to Geo. Black.
Bags, saddle	No.	1	1	1	.....		Invoiced to Geo. Black.

The quarterly returns are compared and verified by the property clerk, who has oversight of custodial matters, and the various returns are transferred to a general property book, which contains a record of all public property in possession of the Survey. A sample leaf from this book is inserted:

PROPERTY BOOK.

Consolidated return of public property of the United States Geological Survey, received, disposed of, and remaining on hand.

Number of articles.	List of articles.	Number or quantity.	Date reported.	John Doe, custodian.				Richard Roe, custodian.					
				On hand as per last return.	Received during the quarter.	Total to be accounted for.	Disposed of during the quarter.	On hand 30th day of March, 1887.	On hand as per last return.	Received during the quarter.	Total to be accounted for.	Disposed of during the quarter.	On hand 30th day of March, 1887.
1	Tables, drawing.....	No. ....	.....	5	1	6	.....	6	3	1	4	1	3

There is an additional record of all property passing through the hands of the property clerk, kept in two books provided for that purpose. In the first there is entered a record of all articles received, of the parties from whom received, of the carrier by whom they are delivered, &c.; and in the second there is a like entry of all articles shipped by the property clerk, the consignees, the destination, the carriers or transportation line, &c. Sample leaves of these books are appended:

RECORD OF PROPERTY RECEIVED.

Public property received at Washington, D. C., United States Geological Survey Office.

No.	Time received.	By whom shipped.	To whom shipped.	How received—by what conveyance.	For whom.
1	{ 1887. Apr. 17 }	V. Mindell, Balto	J. W. Powell	Adams Express.....	.....

Number packages.	Contents.	Weight or measurement.	Rate.	Signature of person receiving the property.	Remarks.
1	1 barometer.	10 pounds.....	50c. h'd.	J. E. Alien	Public property.

RECORD OF PROPERTY SHIPPED.

Public property shipped from Washington, D. C., United States Geological Survey Office

No.	Time sent.	To whom sent, and where. (Consignee.)	How sent—by what conveyance.	For whom.
1	{ 1887. Apr. 1 }	John Stevenson, Flag-staff, Ariz.	Express; Wells, Fargo & Co.	John Smith.

Number packages.	Contents.	Weight or measurement.	Rates.	Signature of carrier or agent.	Remarks.
1	1 camp kit.....	100 pounds.....	50c. h'd.	J. C. Belham.....	Public property.

A still further record of property passing through the general office is kept upon cards which are used, first, for notifying addressees of the receipt and transmittal of goods by the property clerk, and, second, by the addressees for advising the property clerk as to the character of the goods. The forms of face and reverse of this card are appended.

NOTICE OF RECEIPT OF PROPERTY.

[Face of card.]

U. S. GEOLOGICAL SURVEY,
Washington, D. C., May 10, 1887.

Mr. E. P. HOFF,
U. S. Geological Survey:

SIR: I send you herewith one package addressed to you. If public property, indicate on the reverse side of this card the shipper, whence shipped, and the contents. If private matter, remit by bearer 35 cents, the express or freight charges.

By order of the Director:

Respectfully,

JAMES C. PILLING,
Chief Clerk.

[Reverse of card.]

MAY 10, 1887.

To the DIRECTOR, U. S. GEOLOGICAL SURVEY:

SIR: The packages received herewith are public property, were shipped by Jones & Co., from What Cheer, Iowa, and contain specimens of Carbonaceous shale for analysis.

Respectfully,

E. P. HOFF,
Chemist.

Charges inclosed, \$ ———.

When non-expendible property is transferred from a custodian to any employé of the Survey who is not a custodian, a receipt for it is taken, and the employé thereby becomes responsible to the custodian. Commonly the receipt used between custodians is employed for this purpose; but there is a special form of receipt provided for field instruments, as follows:

RECEIPT FOR FIELD INSTRUMENTS.

DEPARTMENT OF THE INTERIOR, UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., January 1, 1887.

Received of James A. Maher, custodian of field instruments, the following instruments: One aneroid barometer.

EDGAR MARLEY,
Topographer U. S. G. S.

As property is consumed, worn out, lost, or otherwise rendered unserviceable, it becomes necessary to make record of the fact; and it is to facilitate this that the classification of property has been devised. When expendible property has been consumed or destroyed the custodian to whom it is charged is authorized to drop it from his record, either with the simple statement that it has been expended or, if the expenditure is in any way unusual, with an explanation as to the manner in which it has been expended. But when non-expendible is worn out or otherwise rendered unserviceable, the custodian reports the fact to the Director and requests to be relieved of responsibility; and the Director, after having satisfied himself of its propriety, by personal inspection or by other means, grants the desired relief. Usually the property is inspected by a specially authorized officer of the Survey. The blank used for reporting the results of the inspection and for the certificates of the responsible officer is appended:

REPORT OF INSPECTING OFFICER.

Inventory of United States Geological Survey property, Colorado division, for which S. F. Emmons, custodian, United States Geological Survey, is responsible. Inspected by John Smith.

	Articles (in alphabetical order).	Condition when received.	How long in use.	Present condition.	Remarks and recom- mendations.
1	Axes	New	2 years....	Worn out.....	To be dropped from re- turn as worthless.
2	Dippers	do	6 months..	Broken, unserviceable.	Do.
3	Kitchen box	do	2 years...	do	Do.

[Certificate of officer responsible for property.]

I certify that the above inventory is correct.

Station: Yreka, Col
Date: October 3, 1885.

[Signature:]

JOHN SMITH,
Geol., Assistant.

[Certificate of inspecting officer.]

I certify that I have carefully examined the articles mentioned in the foregoing inventory, and, finding their condition as stated, I recommend that they be disposed of as indicated.

Location of property: Yreka, Col.

Date: October 3, 1885.

[Signature:]

K. Y. QUALLIE,
Geologist.

[Indorsements.]

[1]

List of United States geological survey property for which S. F. Emmons, custodian, is responsible. Inspection report of John Smith, geologist, Yreka, Col., October 3, 1885.

[2]

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., ————, 188—.

The within articles will be disposed of as recommended.

J. W. POWELL,
Director.

It sometimes happens that property (for example, animals and vehicles) becomes unsuitable for the purposes of the Survey, yet retains some value. If such property is in Washington it is turned over to the Interior Department to be sold, and the proceeds covered into the United States Treasury, when responsibility for it terminates; but if the property is in the field, the custodian having charge of it reports its condition to the Director, who, after sufficient inspection, authorizes him to sell it at public auction in accordance with statutory provision, after due notice, which is posted on the blank hereto appended:

NOTICE OF AUCTION SALE.

AUCTION SALE.

GOVERNMENT SALE OF UNSERVICEABLE PROPERTY BELONGING TO THE U. S. GEOLOGICAL SURVEY.

On Monday morning, July 11, 1887, commencing at 10 o'clock, at Purcellville, Loudoun County, Virginia, will be sold the following property:

One two-horse wagon.

One set double harness.

Six wall tents, 8 x 10.

Terms: Cash in U. S. currency on day of sale, and all purchases to be removed immediately after the sale.

J. W. POWELL,
Director U. S. Geological Survey.

[On reverse.]

INSTRUCTIONS TO SURVEY OFFICERS.

Before property is offered for sale it must be regularly condemned as unserviceable, after proper inspection, as provided by the Regulations of the Survey, on Form 9—047, and authority for the sale must be secured from the Director of the Survey. A detailed statement should be rendered of the articles sold and the price secured for each.

The proceeds of sales of public property must be paid into the Treasury as miscellaneous receipts, without any abatement or reduction whatever. Sales should be made at auction by persons already in the employ of the Survey who may be competent to perform such service. The proceeds must be transmitted to the Director of the Geological Survey, who will place the same to the credit of the Treasurer of the United States.

It sometimes happens, too, that non-expendible property used in the field is lost or destroyed through accident, and provision is made for relieving the custodian of responsibility in such cases; but it is required that affidavit be made as to the circumstances attending the loss or destruction of the property. The affidavit is made upon the accompanying form:

AFFIDAVIT OF LOSS OF PROPERTY.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Topeka, Kans., November 11, 1886.

Personally appeared before me the undersigned, a notary public in and for the county of Shadwell, State of Kansas, George Hawkins, who deposes and says that on the 8th day of November, 1886, two (2) horses, the property of the U. S. Geological Survey, died under the following circumstances:

They were attacked by a disease resembling glanders about November 1; growing worse they became too weak to travel, and on the above date died as stated.

And he further deposes and says that said death was not the result of carelessness, negligence, or disobedience of orders, and that no blame can be attached either to John Sample, who is responsible for said property, or to any person in whose charge the above two horses were at the time said death occurred.

GEORGE HAWKINS.

Sworn and subscribed to on this 11th day of November 1886.

In testimony whereof I have hereunto set my hand.

[SEAL.]

DEAN MAXWELL,
Notary Public.

When non-expendible property is disposed of by any of these methods an explanatory statement is entered in the record of the custodian and transmitted by him to the property clerk, when the custodian's responsibility ceases.

In addition to the monthly reports of scientific progress, of disbursements, and of property, made in the manner already set forth, each field party or division is required to submit a report of persons or articles employed and hired during each month. Such reports are made out upon the form appended hereto.

GENERAL MONTHLY REPORT.

Report of persons and articles employed and hired at Denver, Colo., during the month of July, 1887, by J. W. Powell, Director, U. S. Geological Survey.

Number.	Names of persons and articles.	Designation and occupation.	Services during the month.			Rate of hire or compensation.			Date of contract, agreement, or entry into service.
			From—	To—	Days.	Dolls.	Cts.	Day, month, or annual.	
1	John Jones.....	Clerk	July 1	July 7	7	50	00	Month.	July 1, 1887.
2	Richard Roe.....	Teamster ...	July 1	July 31	31	25	00	Month.	June 1, 1887.
3	Thomas Paine....	Hostler	July 1	July 31	31	20	00	Month.	July 1, 1887.

Number.	By whom owned.	Amount of rent or pay in the month.		Remarks showing how the persons were employed during the month. By whom the buildings were occupied, and for what purpose. Discharges will be noted under this head, date, &c.	Time, and the amount due and remaining unpaid.			
		Dolls.	Cts.		From—	To—	Dolls.	Cts.
1	11	29	Making up property papers.....	} June 1	} July 3	} 50	} 00
2	25	00	Driving office team				
3	20	00	Attending to public animals.....				

Amount of hire and rent during the month.....
Total amount due and remaining unpaid.....

I certify that the above is a true report of all persons and articles employed and hired by me during the month of July, 1887, and that the statements of amounts due and remaining unpaid are correct.

W J MCGEE,
Geologist, U. S. G. S.

From the foregoing statement it will be seen that every article of which the acquisition is shown by a purchase-voucher is entered upon the return of some custodian, and the entry is perpetuated from quarter to quarter until the article is finally disposed of. Thus the records of the property clerk tally with the records of the disbursing clerk; every purchase is represented in the records of the latter by a purchase-voucher; and every article purchased is represented in the records of some custodian of property whose signature appears in the voucher, and of the property clerk, until some final disposition has been made of it. It will be seen that the custodian incurs responsibility either through the certificates upon purchase-vouchers or through his receipts for property transferred to him; and that he is relieved of responsibility (1) by invoice of property transferred to and receipted for by other custodians, (2) by expenditure, (3) by written authority of the Director in the case of property abandoned, (4) by condemnation and sale of property at auction, or (5) by affidavit to the accidental loss of property. Complete documentary evidence is thus preserved of the custody and disposition of every article purchased by the Survey.

Camp Equipage and Rations.

An important part of the work of the Survey is carried on in regions in which it is either inexpedient or impossible to find suitable lodgings and subsistence in hotels.

Accordingly, provision is made for the purchase and use of camp equipage and rations; but the regulations governing the purchase of such property differ in principle from those relating to the acquisition of property used for other purposes. There are valid reasons for the distinction.

As already set forth, economy in the administration of the business affairs of the scientific divisions of the Survey is secured by the method of allotment, under which chiefs of divisions have the highest incentives to reduce expenses. Such officers are accordingly given large discretion in the purchase of the property required in their divisions. But camp life may be either economic or excessively extravagant. Long experience is required to secure a frugal and successful management of a camp; and it cannot be assumed that the heads of all scientific parties and divisions have had such experience. In order, therefore, that the inexperienced may profit by the knowledge of others, lists of articles and rations required in camp life have been prepared with great care, and, having been approved by the Secretary of the Interior, are promulgated for the guidance and use of camp parties. These lists comprise (1) a schedule of field supplies, including 46 articles; (2) a schedule of field material, including 35 articles; and (3) a ration list, including 29 articles.

Thus the chiefs of divisions and parties living in camp are subjected to certain special regulations relating to the acquisition of property required by their mode of life which do not apply under other circumstances; and by these regulations they are in a measure relieved of responsibility in making purchases, the Director assuming a limited responsibility in that the decision as to articles and amounts for the ration is made by him. But after such property is acquired, it is held and accounted for in accordance with the general principles and regulations of the custodial system.

Careful account of rations is kept by each chief of party subsisting in camp, and a monthly statement of rations is submitted. The following is the form of this statement:

RATION ACCOUNT.

Statement of rations and parts of rations issued field party under charge of J. C. Russell during the month of June, 1887, employed in Alabama.

Name.		1	2	3	4	5	6	7	8	9 to 27	28	29	30	31	Total each man.
J. C. Russell.....	No. of voucher or sub-voucher.....														
	Ration issued.....	1	1	1	1	1	1	1	1	1 each	1	1	1		90
C. W. Hayes.....	No. of voucher or sub-voucher.....														
	Ration issued.....	1	1	1	1	1	1	1	1	1 each	1	1	1		30
W. B. Lane.....	No. of voucher or sub-voucher.....														
	Ration issued.....	1	1	1	1	1	1	1	1	1 each	1	1	1		30
Thomas Perry.....	No. of voucher or sub-voucher.....														
	Ration issued.....	1	1	1	1	1	1	1	1	1 each	1	1	1		30
Total.....															120

NOTE.—Where rations are consumed in camp, the day of the month on which they are used should be checked thus: /, opposite the name of each number of the party. When subsistence was obtained outside, the number of the voucher or subvoucher should be entered in the appropriate blank

I hereby certify that the above is a correct statement, and that all rations consumed out of camp were actually necessary for the work of the U. S. Geological Survey. Camp disbanded ———, 188—.

(Signed) J. C. RUSSELL,
Assistant Geologist, in charge of party.

The Custodians of Property.

Except in the case of the property clerk, it has not been found expedient to assign employes of the Survey to exclusive duty as custodians of property, and their duties as such are simply added to their duties as geologists, geographers, and topographers.

The property clerk, who has general charge of the property in the possession of the Survey, is Mr. J. E. Allen. His work is performed under the supervision of the chief disbursing clerk. The other custodians of property, their principal duties, the

divisions and sections in which they are employed, and their headquarters are shown in the accompanying list:

Custodians of property.

Name.	Position.	Division or section.	Headquarters.
Bodfish, S. H.	Topographer.....	Northeastern Sec. Topog	Not fixed.
Christie, P. H.	Topographer.....	Appalach. Sec. Topog	Washington.
Gilbert, G. K.	Geologist	Appalach. Division Geol	Washington.
Hague, Arnold.....	Geologist	Yellowstone P. Division Geol ..	Mammoth H. Sp., Wyo.
Hawkins, R. R.	Geologist	California Division Geol.....	San Francisco, Cal.
Irving, R. D.	Geologist	Lake Superior Division Geol ...	Madison, Wis.
Karl, Anton.....	Topographer.....	New Eng. Sec. Topog	Not fixed.
Maher, J. A.	Topographer.....	Div. Geog. (general).....	Washington.
Peale, Dr. A. C.	Geologist	Montana Division Geol.....	Bozeman, Mont.
Renshawe, J. H.	Topographer.....	Central Sec. Topog	Not fixed.
Rogers, A. M.	Geologist	Rocky Mtn. Division Geol.....	Denver, Colo.
Taylor, A. O'D., jr. ...	Geologist	Archean Division Geol	Newport, R. I.
Thompson, A. H.	Geographer.....	Western Sec. Topog	Not fixed.

It should be noted that the principles set forth and the methods described in the preceding paragraphs are applied with little modification to the property of more special character acquired or produced by the Survey in the departments of documents, library, museum, illustrations, stationery, &c.; and the officers in charge of the divisions under which the work of these departments is performed are virtually custodians of the property used in their divisions.

THE MUSEUM SYSTEM.

The Production of Museum Property.

Although the building up of a museum is not a function of the Geological Survey, yet considerable collections of rocks, minerals, ores, fossils, &c., are made for purposes of necessary study in the prosecution of the work of the different divisions. Such materials are ultimately transferred to the United States National Museum, it being provided by law that all collections made for the Government of the United States, when no longer needed for investigations in progress, shall be deposited there.

It should be observed that the collections made by institutions or individuals engaged in investigating the natural resources of a country are of unequal value. There are certain collections, embracing rare and beautiful minerals, the ores of the precious metals, &c., which possess intrinsic value and are readily marketable; and there are certain other materials, embracing well-preserved fossils, typical rocks, ores, minerals, &c., for which there is a demand for educational and museum purposes. Of recent years museums, both independent and connected with educational and scientific institutions, have greatly multiplied; there is a constant demand for museum material; and a trade in such material has sprung up. Thus there is a class of museum material which has money value, and it is desirable that a definite system of preserving and accounting for such property shall be followed. But there is another class of material collected by the investigator, comprising rocks, soils, some ores and minerals, and common or ill-preserved fossils, which have no money value, would be worthless in a museum, and are useful only in elaborating the field-notes of the geologist or paleontologist. It would manifestly be unwise to preserve such material in the National Museum, and it is accordingly destroyed. Since the collector is best able to judge of the value of his own collection, and will be very unlikely to underestimate it, provision is made for allowing each investigator to select from the material collected in the progress of his work that which shall be permanently preserved.

The Acquisition, Custody, and Transfer of Collections

The employés of the Survey are provided with printed label blanks, which are filled out and attached to specimens as collected in the field, and a field number is given to each specimen upon the label and in the note-book of the collector. The labels used are appended:

FIELD LABELS.

UNITED STATES GEOLOGICAL SURVEY.			
Cascade Mountain collection, No. 9-30.			
Name:	Basalt.		
Remarks:	Probably recent.		
Locality:	Crater Lake, Oregon.		
Collector:	Dutton.	Date: January 1, 1887.	Donor: E. Dutton.
Note book:	"A."		
Page:	35, 36.		

<i>Field label.</i>	
UNITED STATES GEOLOGICAL SURVEY.	
Note book "B." Page 30.	Date: January 1, 1887.
Locality: San Francisco Mt., Grand Cañon district, Arizona.	
Collector: E. M. Blank.	

<i>Field label.</i>	
U. S GEOLOGICAL SURVEY—APPALACHIAN DIVISION.	
No. 39.	Date: January 1, 1887.
Locality: 3 miles southwest of Warrenton, Va.	
Collector: J. B. Wright.	

U. S. GEOLOGICAL SURVEY. DIVISION OF THE ROCKY MOUNTAINS.

State or Territory: Colorado. County: Lake. Town or district: Leadville. Mine: "Dirty Devil." Precise locality: 30 feet from pit of shaft "A." Local designation: Granite. Collected by Emmons, 1887.	Coll. No. 91. Determined by Meade.
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S. F. EMMONS,
Geologist in charge.

FIELD LABELS—Continued.

U. S. GEOLOGICAL SURVEY.	
Yellowstone Park survey.	ARNOLD HAGUE, geologist in charge.
Field No., 33.	Date, October 10, 1887.
Collected near Upper Geyser basin.	N. B., 3 B. Page, 21-23.
Collected by Shuster.	

Sometimes specimens are collected by persons not connected with the Survey, and are transmitted either as gifts, or with requests for identification or for more extended information. When it is believed that the public interest will be subserved thereby, all such inquiries are answered as fully as seems to be desirable. If it is requested, the specimens are returned; but if no such request is made, they are either destroyed or, if of sufficient value, labeled by the collaborator by whom they are examined, and thus become Survey property subject to the regulations controlling the collections made by its employés.

The material collected by the specialists employed upon the Survey is of exceedingly diverse value and character; the specific purposes for which it is employed are also diverse; and it is therefore inexpedient to prescribe regulations for the use and disposition of the material so long as it remains in the hands of the collector. Frequently there is no record of the material produced by the collector, except in his own note books, lists, and catalogues, and he is not charged with it upon any of the general records of the Survey. If, however, the material in the possession of an employé has been acquired by gift through the Director, or has been transferred to him by another officer of the Survey for examination, a record of his acquisition of the property is contained in the correspondence files of the Survey, and he is held accountable for it. Moreover, when the collections are shipped at the expense of the Government they become subjects of record, and their custodians are accountable for them in a general way.

There are three ways in which collectors dispose of their acquisitions: First, if the material is worthless except for immediate study, it is preserved as long as may be required for that purpose and is then destroyed. In this case there is no account of the production and disposition of the material except in the records of the collector, and in the transportation records if it has been shipped as public property. Second, if the material is of value for museum purposes, if it promises to be useful in subsequent researches, or if for any other reason it is deemed wise to preserve it in the National Museum, it is transferred to that institution by one of the two methods described in a subsequent paragraph; and there is a record of such transfer both in the Geological Survey and in the National Museum. Third, if the maker of the collection is, for any reason, unable to investigate the material in the desired manner, it is transferred, through the Director, to some specialist, generally within but sometimes without the Survey, for the requisite examination; and the material thus becomes a subject of general record in the Survey.

The person to whom material is transferred, either from collectors or from outside parties, disposes of it after investigation in one of these ways; but since there is a record of his custody of the material, greater caution is always exercised in disposing of it when so obtained than when it is obtained by collection.

There are two modes of transferring material collected in the progress of the work of the Survey to the National Museum: (1) Certain of the collaborators of the Survey are honorary curators of the National Museum, and have charge in the Museum of the classes of objects which, as members of the Survey, they are engaged in investigating. When a collaborator has completed his investigation of a specimen or collection, and has prepared, identified, and suitably labeled it, he formally transfers it to the National Museum through the accessions clerk of that institution, and receives from him a Museum number which is inscribed upon the label or labels. The material then becomes the property of the Museum, and is arranged upon the shelves, or in the drawers provided for the purpose. To facilitate such transfer, some of these collaborators keep in their offices parts of the catalogue of the Museum, upon which there is a duplicate record of the transfer. The principal record of transfer is, however, that of the accessions clerk of the National Museum. (2) When a collaborator of the Survey who is not a curator of the National Museum desires to transfer specimens or collections to that institution, they are prepared, labeled, and packed, a suitable list or catalogue is added, and the whole is transferred to the Museum by means of a for-

mal letter addressed to the Director and by him referred to the officers of the Museum. Material so transferred is unpacked, entered into the Museum catalogue, numbered in the Museum series, and arranged for preservation or exhibition in the Museum in accordance with the plans of that institution; and the principal record of the transfer, in which all such collections are credited to the Geological Survey, is kept by the accessions clerk of the Museum.

The following officers of the Survey are honorary curators of the National Museum:

Name.	Function.	Division.	Museum Department.
W. H. Dall ...	Paleontologist ..	Cenozoic Division of Invertebrate Paleontology.	IX. Mollusks.
C. D. Walcott..	Paleontologist ..	Paleozoic Division of Invertebrate Paleontology.	XII. A. Invertebrates.
C. A. White ...	Paleontologist ..	Meso-Cenozoic Division of Invertebrate Paleontology.	XII. B. Invertebrate fossils.
L. F. Ward	Paleontologist ..	Fossil Plants.....	XIII. A. Fossil plants.
F. W. Clarke ..	Chemist	Chemistry and Physics	XIII. B. Recent plants.
			XIV. Minerals.

The work of the Survey is greatly facilitated by the co-operation existing between it and the National Museum.

THE ILLUSTRATION SYSTEM.

The Uses of Illustrations.

With the increase of human knowledge there has been a constant growth of literature until its volume has become enormous.

There is a distinction between what is known as pure literature and the literature of science. Pure literature deals with certain human emotions, passions, and qualities that are constant in character but not reducible to terms of exact knowledge. The subjects of pure literature may therefore be treated with limited antecedent knowledge on the part of the author as to the manner in which the same or related subjects are treated by other authors; little progress is made in either the matter or manner of literary work during any generation or century; and the classics of pure literature are often as old as the language, even as old as written history. But in scientific literature, which deals with subjects of exact knowledge, the writings of each period represent the existing sum of human knowledge concerning each of the subjects treated, and, combined, define the intellectual plane of the period, and form the basis for further progress. In science each investigator commences where his predecessor left off, and the growth of scientific knowledge is thus a process of evolution commencing at fixed points, each determined by antecedent knowledge. So the classics in science are always modern, and the standard scientific treatises of past decades and generations have little more than historical value.

The original investigator is therefore compelled to read a voluminous current literature in order to keep abreast of current scientific thought. Keeping pace with the literature of his subject is indeed one of the heaviest burdens of the scientific student. It is from this cause more than any other that the modern specialization of scientific work has become necessary. Moreover, the great cost of the publications which it is necessary for the investigator to consult, is an additional burden upon the scientific man and upon scientific institutions. Every device for diminishing the volume of scientific literature without reducing the sum of knowledge contained therein is therefore a boon to the student; and in the Geological Survey much thought has been given to plans for securing this end.

One of the most satisfactory methods for diminishing the volume of scientific treatises on general or special subjects is that of substituting graphic representation for verbal statement. A map occupying a page not only represents information which it would require a score of pages of text to convey verbally, but conveys the information in a more complete and intelligible form; and a landscape sketch, in which the elements of the landscape are of geologic significance, and which may be printed on a single page, may tell eloquently what could be told verbally only in an entire chapter. So there is great economy to the reader in the use of graphic illustrations wherever practicable; and within certain limits there is economy to the publisher in substituting graphic representation for verbal statement.

The graphic representation of phenomena has another important advantage which is not often realized: in certain investigations involving study of the relations of parts, graphic representation is essential to the comprehension of relation. In re-

gions of complex geologic structure, for example, the student may be unable to perceive the relations between different outcrops of similar deposits, and may be unable to determine whether all represent a single stratum of irregular form or a number of distinct strata, until the observations are projected upon paper in both horizontal and vertical planes. So the graphic method becomes an instrument of research as well as a means of representing the results of research.

The uses of photography have multiplied with the development of the art until they have become innumerable. Photography is employed in the Geological Survey in many ways. It is employed for the reproduction of landscapes for the use of both the geologist and the topographer, and of exposures of rocks for the geologist. The unique and instructive scenery of the mountains and plateaus of the West, the historic hills and valleys of the Appalachian region, and the peculiar features of the Mississippi Valley plains, are all successfully reproduced by means of photography. The complex and puzzling features of the glacial drift, and the structure of granites, limestones, ore-beds, &c., and the relations of the members in sections of displaced and convoluted beds in mountain regions, are all satisfactorily represented by the same process.

Photography is also used largely in the preparation of drawings of fossil plants, animals, &c., by a method which has been devised within the Survey. The object is photographed upon specially prepared paper; upon the photograph a drawing is made in indelible ink, by an artist who has the object before him, in such a way as to represent the characteristics of the object in a more satisfactory manner than can be done by photography alone; and the photographic impression is then bleached out, leaving a drawing in ink which can be readily and cheaply reproduced.

Photography is also largely used in the Survey for the reproduction of maps. Certain maps required for the use of the Survey are rare, and a single copy only is obtainable. This is cheaply multiplied by photography. The scales of maps required for use in the field, or as copy for the lithographer in the preparation of illustrations for reports, are sometimes unsuitable; but by photography these maps are quickly reduced to the desired scale at small cost. The maps drawn in the geographic division, and certain other drawings prepared in the office of the Survey, are elaborate and finely executed, and their loss or injury would be serious; and such maps or drawings are generally duplicated by photography.

Classified by the general purposes for which they are used, the illustrations produced by the Survey belong to two categories. The first embraces illustrations needed in the prosecution of Survey work, *e. g.*, field sketches and photographs used in the preparation of topographic maps or in the prosecution of geologic studies, bleachable photographs of fossils and crystals, photographs of maps for working purposes, &c. The second category includes illustrations to be engraved for reports on special subjects published by the Survey. Photographs and sketches are not published independently, nor distributed as publications of the Survey; but in some cases such illustrations are exchanged with the correspondents of the Survey, just as minerals, fossils, &c., are sometimes exchanged, and provision is made for keeping a record of such exchanges under the document system.

The Production, Custody, and Disposition of Illustrations.

The illustrations produced by the Survey fall into five classes, viz: (1) maps, (2) field sketches, (3) field photographs, (4) photographs made in the office from object collected in the field, &c., and (5) finished drawings.

(1) The maps prepared by the Survey comprise atlas sheets, which have been described in detail in the annual reports, and such special maps as are required from time to time for the illustrations of reports. The atlas sheets result from the operations of the geographic division. In general, each topographer is charged with the survey of a stated area during each field season, and with the construction of a map covering that area during the succeeding office season. The topographers are thus their own draftsmen; but it is sometimes expedient to assist the topographer in this part of his work, and for this reason a section of drafting has been established in the geographic division. In addition to such work as may be required upon the atlas sheets, the drafting of the special maps required for the reports is performed in this section.

The manuscript atlas sheets are transmitted from the topographic division through the Director to the Public Printer for engraving under contract; the proofs are returned through the same channel, and are revised in the geographic division; and the proof-copies of the printed sheets required for the current use of the Survey are purchased and placed in charge of the division of geography.

The assignment of a topographer for the survey of a given territory is a matter of record. By means of the custodial and stationery systems account is kept of all material that passes into his hands, and when the manuscript map, which represents the outcome of his work, is completed, his account may be balanced and the exact cost of the survey and drawing computed. The finished map is transferred to the chief geographer,

and becomes a definite unit of property, of which strict account is kept at every stage, as drawings, proofs, and, finally, printed maps and engraved plates. Moreover, each map bears the name of the topographer who made the survey and executed or directed the drawing; and thus the responsibility for the work as well as the material is definitely and permanently fixed.

(2) Field sketches are made by the geologists and topographers of the Survey in the progress of their work. Like the collections, they fall into two classes, the first of which is only of temporary use, and the second of permanent use; and, as in the case of collections again, the disposition of field sketches is determined by their producer. The field sketches of the topographers are used in the construction of the maps, but no further use is made of them and they do not become subjects of record except in the note books of the topographers. A large portion of the sketches made by the geologists in the field are only of service in correlating observations and forming conceptions concerning the relation of the rockmasses and other geologic phenomena investigated, and no account is kept of such illustrations except in note books. But a portion of the sketches made by the geologists in the field, as well as most of the drawings made by him in the office, are useful in illustrating the report upon his work, and all such sketches are so elaborated as to serve as copy for the engraver or lithographer, either by the geologist himself or by artists employed for that purpose in the illustrations division of the Survey. Such sketches become matters of record when they are transferred to the illustrations division for reconstruction or to the editorial division for transmission to the Public Printer for reproduction.

(3) Field photographs are generally taken either by the geologists or topographers themselves or by photographers in the regular employ of the Survey; but in certain special cases local photographers are employed in the field. Most of the geologic divisions of the Survey are provided with cameras, and most of the geologists have become skilled in their use and make their own negatives. This is advantageous when the field of work is remote and but a limited number of negatives is required; but when the field is readily accessible and the number of negatives required is large, it is more economic to have the work done by skilled photographers employed regularly for the purpose.

The photographs taken by the Survey become public property, and record is kept both of the negatives and of the prints made therefrom. When photographs are made by local photographers under special contracts, however, the negatives may or may not become the property of the Government, according to the terms of the contract; but record is made of the prints as soon as they reach the illustrations or editorial division. A large proportion of the photographs taken by geologists in the field and nearly all of those taken by the topographers are only of temporary use, and after they have served their purpose the negatives are destroyed. A smaller proportion are of permanent value and are ultimately either worked up into finished drawings or reproduced directly by wood engraving or otherwise for the illustration of reports, the negative being preserved as long as necessary.

(4) The chief purposes of the photographs made in the office have already been indicated. They are made upon requisition, countersigned by the chief clerk, or upon specific authorization of the Director; and when delivered the receipt of the photographs is acknowledged upon the requisition blank by the person for whom they were made. A copy of this blank is attached:

REQUISITION FOR PHOTOGRAPHS.

No. 213.]

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
January 1, 1887.

J. K. HILLERS, *Photographer*:

Please furnish to this office for Mr. Sample 3 prints of negative No. 90 (1886).

JAMES C. PILLING,
Chief Clerk.

Received January 4, 1887.

J. C. SAMPLE.

There is thus a definite system of regulating and controlling this class of work in the photographic laboratory. The negatives are preserved whenever necessary.

(5) There is a small corps of artists employed in the preparation of finished drawings designed for the illustration of reports. These drawings represent landscapes, rock exposures, geologic sections, various kinds of diagrams, crystalline and other mineral forms, microscopic slides, fossil remains of animals and plants, &c. They are constructed from field sketches and photographs, from data furnished by the authors of reports, or from the objects themselves. Their production is specifically authorized by the Director, either orally when they are prepared in advance of the completion of the reports for publication, or through the editorial division when the reports

which they are designed to illustrate have been accepted for publication. A record of the finished drawings produced is kept in the division of illustrations.

The proofs of illustrations are revised, and the original drawings and duplicate proofs are preserved and recorded, in the illustrations division.

The Reproduction of Illustrations.

The most delicate and important duty connected with the preparation of finished drawings for the illustration of reports is the selection of methods of reproduction; for while in certain cases the most advantageous method may be evident, there are cases in which different methods might be employed, and in which the question of cost becomes an important element in the selection. Certain general principles which have been set forth in previous publications govern the selection in some cases: *e. g.*, lithography is never employed when it can be avoided, partly because lithographs are expensive both in reproduction and in printing and partly because it is not practicable to preserve them and duplicate the illustrations in different arrangements when necessity arises; and wood engravings and modern photo-process engravings, which are not open to these objections, are used as far as possible. But there are many cases in which lithography would produce the best results, wood engraving somewhat inferior results, and photo-process engraving still less satisfactory results; and the question to be decided, therefore, involves the careful weighing of the antagonistic considerations of excellence and cheapness. The question is further complicated by the manner in which the contracts for reproduction are ordinarily made—the contract for lithography commonly including printing, while those for wood-process engraving do not; and since it frequently happens that photographs or other subjects which might be reproduced direct on stone or wood must be redrawn in order that they may be reproduced by the photo-processes, the cost of drawing may have to be considered also.

Every effort is made to reduce the cost of illustrations for reports of the Survey to as low a figure as is consistent with a high standard of excellence, and it is accordingly necessary to exercise judgment as to the best methods of reproduction of illustrations in connection with nearly every publication issued by the Survey. It is believed that these efforts have been eminently successful, since the illustrations of the publications of the Geological Survey compare favorably with those of other scientific institutions, both domestic and foreign, while the cost of reproduction of such illustrations has been reduced fully 60 per cent. since the organization was established.

The division of illustrations is in charge of Mr. W. H. Holmes, who employs a number of assistants upon finished drawings and the proof-reading of engravings; and the photographic laboratory belonging to the division is in charge of Mr. J. K. Hillers, who has four skilled assistants. This force does not include that employed in the section of topographic drawing in the division of geography.

THE EDITORIAL SYSTEM.

The Functions of the Editorial Division.

As provided in the organic law of the Survey its publications consist of four classes, namely: (1) Annual reports, (2) monographs, (3) bulletins, and (4) statistical papers. These publications reach a considerable volume annually. During the fiscal year of 1886-'87 there were published two bound volumes in octavo, three in quarto, and thirteen unbound bulletins, aggregating 4,253 pages of text, illustrated by 350 plates and 327 figures.

The labor involved in supervising so large an amount of publication, comprising the suitable preparation of manuscripts for the press and the careful and repeated proof-reading demanded by the highly technic character of the work, has necessitated the development of an editorial system.

The principal considerations borne in mind in the development of this system are the following: (1) Individuals engaged in researches involved in or collateral to the extension of the geologic survey of the United States over the national domain should have facilities for publication of the results of their work equal to those afforded by the publishing houses or scientific institutions of this and other countries; (2) no matter should be published unless it be of sufficient value to warrant publication and extended distribution; (3) the publications of the Survey should be prepared, printed, and bound on a uniform and consistent plan for each of the classes established by law; (4) corrections and alterations should be made as far as practicable in the manuscript rather than in the proof, proof corrections being expensive; and (5) the author, who may be engaged in investigations or other important work of high grade, should be relieved as far as practicable of the details of book-making, part of which can be satisfactorily performed by others whose time is of less value.

Under the second head, it may be remarked that it is to avoid the risk of burdening the series of Survey publications with trivial matter, statements or theories of doubtful validity, and all writings whose value to the people of the country is not commensurate with the cost of publication, that the papers offered for publication by the Survey are so searchingly criticised by the Director and his collaborators in the manner hereinafter set forth. Moreover, should it appear necessary at any time, matter offered to the Survey for publication, either by its own officers or by others, would be submitted to competent authorities outside of the institution for a statement as to its scientific value and an opinion as to the desirability of publishing it.

The consideration referred to under the fifth head involves one of the fundamental principles of the policy of the Survey, *i. e.*, the division of labor in such manner that each employé shall be assigned to those duties only which he can most advantageously and economically perform. In a simple organization employing few individuals this principle may be ignored without serious loss, but in a complex organization, performing various functions and employing a large number of individuals, differentiation of function is believed to be essential to the highest efficiency.

So far as is practicable the advantages of literary criticism in advance of publication are secured by the authors of the reports issued from time to time by the institution. Moreover, by the employment of an editor, whose duty it is to assist the Director in exercising a general supervision over the publications of the Survey the latter, is enabled to make his supervision much closer and less general in character than it would otherwise be in view of the magnitude of the annual literary product.

The Methods of Work.

Nearly all the reports published by the Survey are prepared either by chiefs of divisions or by assistants working under their direction. A few reports prepared by geologists of the country not in the employ of the Survey are published; but these relate to subjects upon which the Survey is engaged or contain information of value to the Survey which could not be so economically acquired in any other way.

The reports prepared by chiefs of divisions are submitted to the Director for approval, and are generally discussed at length by the author and Director, and sometimes by other officers of the Survey, before they are transferred to the editorial department. Reports prepared by assistants are examined by chiefs of divisions, and if approved by these officers are transmitted to the Director and discussed in the same manner as the reports emanating from the chiefs themselves. Reports prepared either by geologists not connected with the Survey or by assistants whose chiefs are not specialists in the subjects treated, are transmitted to the Director and generally submitted by him to some member or members of the Survey especially familiar with the subject reported on, and if the reports are approved by them they are submitted to the Director anew with either oral or written recommendation for publication. After approval by the Director, all manuscripts prepared for publication are transmitted to the editorial division with instructions as to the class of publications in which they are to appear.

One of the principal functions of the editor is to maintain uniformity in the different classes of publications, and to make such arrangements of and additions to the manuscript as may be required for that purpose. In the interests of convenience on the part of readers, it is desirable that books shall be properly arranged under chapters, sections, and lesser divisions, and that all divisions shall be suitably indicated by means of titles. It is desirable also that a list of the chapters, sections, or other divisions in each volume, so arranged as to give a logical view of the contents of the treatise, shall be introduced in the work. Moreover, the value of books to most users is greatly increased by the addition of an index. Accordingly complete lists of contents and of illustrations and full indexes are appended to the publications of the Survey.

When a manuscript work reaches the editor, it is supplied with title-pages and with lists of contents and illustrations, if these are needed. The manuscript is then critically read, clerical errors are corrected, obviously necessary transpositions and other purely literary corrections are made, quotations and bibliographic references are verified and the latter are reduced to a uniform plan, and references to illustrations are made or corrected. Where more important alterations appear to be required they are suggested to the author (and in some cases to the Director); and if the number of alterations is large the manuscript is returned to the author for revision. In some cases this critical examination leads to the rejection of a paper.

The manuscript is next "prepared" for the printer—the type, size, and style of headings, &c., are indicated, and all necessary directions for printing are given. Meantime the illustrations are transferred to the division of illustrations for editing, for redrawing when required, and for such directions as to reproduction as may be deemed necessary. The manuscript and illustrations are then transmitted to the Public Printer by the Director.

Duplicate galley proofs are returned from the Government Printing Office to the editor; one set is first corrected by the manuscript and then submitted to a critical

reading similar to that given to the matter in manuscript, and the necessary corrections and changes are made; and the other set is transmitted to the author for his revision, and finally his corrections are transferred to the galley in the hands of the editor, which is then returned to the printing office.

The page proof is in like manner conveyed to the editorial division and is there read and revised, and running titles and signature marks are added. In some cases the page proof is also sent to the author for revision.

The "second page revise," as it is technically called, is also returned to the editor. An index is then prepared, or, if one has been prepared by the author, it is revised and corrected. After the second page revise has received the final corrections (in some cases a third or fourth revise is found necessary) it is transmitted to the office of the Public Printer as approved, and passes out of the custody of the editorial division.

While in the office of the Survey the copy and proofs are arranged in drawers for convenient reference, and a set of each proof, both galley and page, is permanently preserved by the editor. Each page or galley of the proof-sheets is stamped in red ink on its receipt. Copies of the stamps are appended:

PROOF STAMPS.

- First revise.
- Duplicate first revise.
- First page revise.
- Duplicate first page revise.
- Second page revise.
- Duplicate second page revise.
- Third page revise.
- Final page revise.
- Sent to author.
- Author's marks transferred.
- Last corrections transferred.

During the progress of a book through the press a record is kept of the transmission of all copy and proof to, and its receipt from, the Public Printer. Sample leaves of the book in which this record is kept are appended:

EDITOR'S ACCOUNT WITH PUBLIC PRINTER.

Bulletin 42.—Report of work done in the division of chemistry and physics mainly during the fiscal year 1885-'86, F. W. Clarke, chief chemist.

DR. PUBLIC PRINTER. CR.

Date.	Manuscript pages.	Galleys.	1st revise.	2d revise.	Remarks.	Date.	Manuscript pages.	Galleys.	1st revise.	2d revise.	Remarks.
1887.	.					1887.					
Mar. 16	1-301		.....	.....		May 7	1-49	1G-10G	.....	.....
June 2	1G-60G	.....	.....		May 7	50-143	11G-34G	.....	.....
June 18	1-149	.....		June 6	.....	.....	1-48	.....
June 23	1-149		June 22	.....	.....	.....	1-32	

Proofs and manuscript are sent to the authors when necessary either by mail or express; and the author is notified of their transmission by means of a penalty-card, a copy of which is appended:

NOTICE TO AUTHORS.

DEPARTMENT OF THE INTERIOR,
 UNITED STATES GEOLOGICAL SURVEY.
 Washington, D. C., January 1, 1887.

SIR: I send you by mail to-day proof-sheets as follows:

MS. pp. 1-100.
 1st R. pp. 17-32.

Galleys 1 A-20 A.
 2d R. pp. 1-16.

Please return at your earliest convenience.

JAMES C. PILLING,
 Chief Clerk.

One of the first processes in the preparation of a book for the press is the construction or verification of the list of illustrations. This list is preserved by the editor until the illustrations are finally prepared for reproduction and transmitted to the Public Printer. The illustrations themselves are, however, transferred to the chief of the division of illustrations for reconstruction or for directions as to reproduction; and the transfer is noted by means of checks upon the list of illustrations, as is also the return of the finished drawings.

Before the illustrations are transmitted to the Public Printer they are recorded in a book kept for the purpose, by name, publication number, and an arbitrary office number, assigned simply for the convenience of the clerk who keeps the record; and the receipt of the proof from the engravers or lithographers, their return, and their final approval, are also recorded in the same book. Sample leaves of this record are appended:

RECORD OF ILLUSTRATIONS.

Fourth annual report of the U. S. Geological Survey—1882-'83.

Date of receipt.	From whom received.	What received	Title.	Office No.	Final No.	Size.
1883. July 7	Henry Gannett...	Drawing.....	Map of U.S. show- areas surveyed..	17,001	Pl. I	Double pl't.
7	Capt. C. E. Dutton.	do	General map of Hawaiian Arch- ipelago	2	II	do
Reproduction.		Action.		Reproduced by—		
		Date.	To whom sent.			
Chromo-lithograph		1883. August 31	Public Printer.....	Julius Bien & Co.		
Photo-engraving.....		October 6	do.....	Photo-Engraving Co.		
First proof.		Second proof.		Approved by Director.	Remarks.	
Received.	Returned.	Received.	Returned.			
1883. { $\frac{2223}{83}$ } No v. 15 }	1883. November 17	1883. { $\frac{2366}{83}$ } Dec. 17 }	1883. December 17	1883. December 17	537- $\frac{2223}{83}$ Subject to one cor- rection.	
1884. { $\frac{270}{84}$ } Feb. 12 }	1884. February 13			1884. February 13		

The proofs of illustrations are revised by the chief of the illustrations division, and by authors in accordance with his instructions; the proofs are stamped in the same manner as are the letter-press proof sheets; and the original drawings, together with duplicate proofs, are permanently preserved by the chief of the illustrations division.

The editorial work of the Survey is in charge of Mr. Thomas Hampson, who has eight assistants; but the general correspondence of the office is also conducted in this division, and occupies most of the time of several of these assistants, and the work upon illustrations is performed in the illustrations division.

THE DOCUMENT SYSTEM.

The Publications of the Survey.

The annual reports of the Survey are issued in four editions. The first comprises the "usual number" of documents ordered by Congress, or 1,900 copies; the second is a special congressional edition of 3,000 copies, of which 1,000 are for the use of the Senate, and 2,000 for the use of the House; the third is an edition of 750 copies

ordered by the Secretary of the Interior to accompany, and form volume 3 of, his annual report; and the fourth is an edition of variable number published under a joint resolution of each Congress, of which a part is designed for the use of the Senate and House of Representatives, and a part for the use of the Geological Survey. Of the second and third annual reports 2,500 copies each, and of the fourth and fifth annual reports 5,000 copies each were printed for the use of the Survey, and of the sixth and seventh 5,000 copies each are authorized.

The monographs, bulletins, and statistical papers are issued in two editions; the first comprising the "usual number" of documents ordered by Congress, and the second the edition of 3,000 copies provided by statute for sale and exchange through the Geological Survey, in accordance with the provisions of the law regulating its publications. Only the latter edition passes into the custody of this institution.

Small special editions of each of the reports on mineral resources, and of two bulletins on subjects believed to be of wide interest, have also been printed for the use of the Survey by order of the Secretary of the Interior.

The publications of the Survey are exhibited in the accompanying list:

PUBLICATIONS OF THE GEOLOGICAL SURVEY.

ANNUAL REPORTS.

- I. First Annual Report to the Hon. Carl Schurz, by Clarence King. 1880. 8°. 79 pp. 1 map.—A. preliminary report describing plan of organization and publications.
- II. Report of the Director of the United States Geological Survey for 1880-'81, by J. W. Powell. 1882. 8°. lv, 588 pp. 61 pl., 1 map.
- III. Third Annual Report of the United States Geological Survey, 1881-'82, by J. W. Powell. 1883. 8°. xviii, 564 pp. 67 pl. and maps.
- IV. Fourth Annual Report of the United States Geological Survey, 1882-'83, by J. W. Powell. 1884. 8°. xxxii, 473 pp. 85 pl. and maps.
- V. Fifth Annual Report of the United States Geological Survey, 1883-'84, by J. W. Powell. 1885. 8°. xxxvi, 469 pp. 58 pl. and maps.

The Sixth and Seventh Annual Reports are in press.

MONOGRAPHS.

- II. Tertiary History of the Grand Cañon District, with atlas, by Clarence E. Dutton, capt. U. S. A. 1882. 4°. xiv, 264 pp. 42 pl., and atlas of 24 sheets folio. Price \$10.12.
- III. Geology of the Comstock Lode and the Washoe District, with atlas, by George F. Becker. 1882. 4°. xv, 422 pp. 7 pl., and atlas of 21 sheets folio. Price \$11.
- IV. Comstock Mining and Miners, by Eliot Lord. 1883. 4°. xiv, 451 pp. 3 pl. Price \$1.50.
- V. Copper-bearing Rocks of Lake Superior, by Roland D. Irving. 1883. 4°. xvi, 464 pp. 15 l. 29 pl. Price \$1.85.
- VI. Contributions to the Knowledge of the Older Mesozoic Flora of Virginia, by Wm. M. Fontaine. 1883. 4°. xi, 144 pp. 54 l. 54 pl. Price \$1.05.
- VII. Silver-lead Deposits of Eureka, Nev., by Joseph S. Curtis. 1884. 4°. xiii, 200 pp. 16 pl. Price \$1.20.
- VIII. Paleontology of the Eureka District, by Charles D. Walcott. 1884. 4°. xiii, 298 pp. 24 l. 24 pl. Price \$1.10.
- IX. Brachiopoda and Lamellibranchiata of the Raritan Clays and Greensand Marls of New Jersey, by Robert P. Whitfield. 1885. 4°. xx, 338 pp. 35 pl. Price \$1.15.
- X. Dinocerata. A Monograph of an Extinct Order of Gigantic Mammals, by Othniel Charles Marsh. 1885. 4°. xviii, 243 pp. 56 l. 56 pl. Price \$2.70.
- XI. Geological History of Lake Lahontan, a Quaternary Lake of Northwestern Nevada, by Israel Cook Russell. 1885. 4°. xiv, 288 pp. 46 pl. Price \$1.75.

The following is in press, viz:

- XII. Geology and Mining Industry of Leadville, with atlas, by S. F. Emmons. 1886. 4°. xxix, 770 pp. 45 pl., and atlas of 35 sheets folio.

The following are in preparation, viz:

- Gasteropoda of the New Jersey Cretaceous and Eocene Marls, by R. P. Whitfield.
- Geology of the Eureka Mining District, Nevada, with atlas, by Arnold Hague.
- Lake Bonneville, by G. K. Gilbert.
- Saurpoda, by Prof. O. C. Marsh.
- Stegosauria, by Prof. O. C. Marsh.
- Brontotheridæ, by Prof. O. C. Marsh.
- Geology of the Quicksilver Deposits of the Pacific Slope, with atlas, by George F. Becker.
- The Penokee-Gogebic Iron-Bearing Series of North Wisconsin and Michigan, by Roland D. Irving.
- Younger Mesozoic Flora of Virginia, by William M. Fontaine.
- Description of new Fossil Plants from the Dakota Group, by Leo Lesquereux.
- Report on the Denver Coal Basin, by S. F. Emmons.
- Report on Ten-Mile Mining District, Colorado, by S. F. Emmons.
- Report on Silver Cliff Mining District, by S. F. Emmons.
- Flora of the Dakota Group, by J. S. Newberry.

BULLETINS.

1. On Hypersthene-Andesite and on Triclinic Pyroxene in Augitic Rocks, by Whitman Cross, with a Geological Sketch of Buffalo Peaks, Colorado, by S. F. Emmons. 1883. 8°. 42 pp. 2 pl. Price 10 cents.

2. Gold and Silver Conversion Tables, giving the coinage values of troy ounces of fine metal, &c., by Albert Williams, jr. 1883. 8°. 8 pp. Price 5 cents.
3. On the Fossil Faunas of the Upper Devonian along the meridian of 76° 30', from Tompkins County, New York, to Bradford County, Pennsylvania, by Henry S. Williams. 1884. 8°. 36 pp. Price 5 cents.
4. On Mesozoic Fossils, by Charles A. White. 1884. 8°. 36 pp. Price 5 cents.
5. A Dictionary of Altitudes in the United States, compiled by Henry Gannett. 1884. 8°. 325 pp. Price 20 cents.
6. Elevations in the Dominion of Canada, by J. W. Spencer. 1884. 8°. 43 pp. Price 5 cents.
7. *Mapoteca Geologica Americana*. A catalogue of Geological Maps of America (North and South), 1752-1881, by Jules Marcou and John Belknap Marcou. 1884. 8°. 184 pp. Price 10 cents.
8. On Secondary Enlargements of Mineral Fragments in Certain Rocks, by R. D. Irving and C. R. Van Hise. 1884. 8°. 56 pp. Price 10 cents.
9. Report of work done in the Washington Laboratory during the fiscal year 1883-'84. F. W. Clarke, chief chemist; T. M. Chatard, assistant. 1884. 8°. 40 pp. Price 5 cents.
10. On the Cambrian Faunas of North America. Preliminary studies, by Charles D. Walcott. 1884. 8°. 74 pp. 10 pl. Price 5 cents.
11. On the Quaternary and Recent Mollusca of the Great Basin, with descriptions of new forms, by R. Ellsworth Call; introduced by a sketch of the Quaternary Lakes of the Great Basin, by G. K. Gilbert. 1884. 8°. 66 pp. 6 pl. Price 5 cents.
12. A Crystallographic Study of the Thiolite of Lake Lahontan, by Edward S. Dana. 1884. 8°. 34 pp. 3 pl. Price 5 cents.
13. Boundaries of the United States and of the several States and Territories, by Henry Gannett. 1885. 8°. 135 pp. Price 10 cents.
14. The Electrical and Magnetic Properties of the Iron-Carburets, by Carl Barus and Vincent Strouhal. 1885. 8°. 238 pp. Price 15 cents.
15. On the Mesozoic and Cenozoic Paleontology of California, by Charles A. White. 1885. 8°. 33 pp. Price 5 cents.
16. On the higher Devonian Faunas of Ontario County, New York, by John M. Clarke. 1885. 8°. 86 pp. 3 pl. Price 5 cents.
17. On the Development of Crystallization in the Igneous Rocks of Washoe, Nevada, by Arnold Hague and Joseph P. Iddings. 1885. 8°. 44 pp. Price 5 cents.
18. On Marine Eocene, Fresh-water Miocene, and other Fossil Mollusca of Western North America, by Charles A. White. 1885. 8°. 26 pp. 3 pl. Price 5 cents.
19. Notes on the Stratigraphy of California, by George F. Becker. 1885. 8°. 28 pp. Price 5 cents.
20. Contributions to the Mineralogy of the Rocky Mountains, by Whitman Cross and W. F. Hillebrand. 1885. 8°. 114 pp. 1 pl. Price 10 cents.
21. The Lignites of the Great Sioux Reservation, by Bailey Willis. 1885. 8°. 16 pp. 5 pl. Price 5 cents.
22. On New Cretaceous Fossils from California, by Charles A. White. 1885. 8°. 25 pp. 5 pl. Price 5 cents.
23. Observations on the junction between the Eastern Sandstone and the Keweenaw Series on Keweenaw Point, Lake Superior, by R. D. Irving and T. C. Chamberlin. 1885. 8°. 124 pp. 17 pl. Price 15 cents.
24. List of Marine Mollusca, comprising the Quaternary Fossils and recent forms from American localities between Cape Hatteras and Cape Roque, including the Bermudas, by William H. Dall. 1885. 8°. 336 pp. Price 25 cents.
25. The Present Technical Condition of the Steel Industry of the United States, by Phineas Barnes. 1885. 8°. 85 pp. Price 10 cents.
26. Copper Smelting, by Henry M. Howe. 1885. 8°. 107 pp. Price 10 cents.
27. Report of work done in the Division of Chemistry and Physics mainly during the fiscal year 1884-'85. 1886. 8°. 80 pp. Price 10 cents.
28. The Gabbros and Associated Hornblende Rocks occurring in the neighborhood of Baltimore, Md., by George H. Williams. 1886. 8°. 78 pp. 4 pl. Price 10 cents.
29. On the Fresh-water Invertebrates of the North American Jurassic, by Charles A. White. 1886. 8°. 41 pp. 4 pl. Price 5 cents.
30. Second contribution to the studies on the Cambrian Faunas of North America, by Charles D. Walcott. 1886. 8°. 369 pp. 33 pl. Price 25 cents.
31. A systematic review of our present knowledge of Fossil Insects, including Myriapods and Arachnids, by Samuel H. Scudder. 1886. 8°. 128 pp. Price 15 cents.
32. Mineral Springs of the United States, by Albert C. Peale. 1886. 8°. 235 pp. Price 20 cents.
33. Notes on the Geology of Northern California, by Joseph S. Diller. 1886. 8°. 23 pp. Price 5 cents.
34. On the relation of the Laramie Molluscan Fauna to that of the succeeding Fresh-water Eocene and other groups, by Charles A. White. 1886. 8°. 54 pp. 5 pl. Price 10 cents.
35. The Physical Properties of the Iron-Carburets, by Carl Barus and Vincent Strouhal. 1886. 8°. 62 pp. Price 10 cents.
- Numbers 1 to 6 of the Bulletins form Volume I; Numbers 7 to 14, Volume II; Numbers 15 to 23, Volume III; and Numbers 24 to 30, Volume IV. Volume V is not yet complete.

The following are in press, viz:

36. The Subsidence of small particles of Insoluble Solid in Liquid, by Carl Barus.
37. Types of the Laramie Flora, by Lester F. Ward.
38. Peridotite of Elliott County, Kentucky, by Joseph S. Diller.
39. The Upper Beaches and Deltas of the Glacial Lake Agassiz, by Warren Upham.
- In preparation:
40. Geologic notes in Northern Washington Territory, by Bailey Willis.
41. Fossil Faunas of the Upper Devonian—the Genesee Section, by Henry S. Williams.
42. Report of work done in the Division of Chemistry and Physics, mainly during the fiscal year 1885-'86. F. W. Clark, chief chemist.
43. On the Tertiary and Cretaceous Strata of the Tnscalesa, Tombigbee, and Alabama Rivers, by Eugene A. Smith and Lawrence C. Johnson.
44. Historic statement respecting Geologic Work in Texas, by R. T. Hill.
45. The nature and origin of Deposits of Phosphate of Lime, by R. A. F. Penrose, jr.
46. Bibliography of North American Crustacea, by A. W. Vogdes.

STATISTICAL PAPERS.

Mineral Resources of the United States [1882], by Albert Williams, jr. 1883. 8°. xvii, 813 pp. Price 50 cents.

Mineral Resources of the United States, 1883 and 1884, by Albert Williams, jr. 1885. 8°. xiv, 1016 pp. Price 60 cents.

In press:

Mineral Resources of the United States for the Calendar Year 1885.

In the accompanying tables the publications which have passed into the custody of the Survey are enumerated, and the size of edition, the cost per copy as determined by the Public Printer (except in the case of annual reports, the cost of which is estimated), the aggregate number of volumes, and the total cost, are also exhibited. From these tables it will be seen that under the present directorship of the Survey there have been issued five annual reports, ten monographs, thirty-nine bulletins, and three volumes of mineral resources; in all, fifty-seven distinct publications, in editions ranging from 2,500 to 5,000. It will also be seen that the aggregate value of the property in the form of publications for which the Survey has incurred responsibility during the last five years is no less than \$159,390.

Annual Reports U. S. Geological Survey.

Name.	Edition.	Estimated cost.	Total cost.
Second	2,500	} \$2 00 {	\$5,000
Third	2,500		5,000
Fourth	5,000		10,000
Fifth	5,000		10,000
Sixth	5,000		10,000
Total	20,000	.....	40,000

Monographs of the U. S. Geological Survey.

Name.	Edition.	Price per copy.	Total cost.
(II) Tertiary History of the Grand Cañon District, by C. E. Dutton	3,000	\$10 12	\$30,360 00
(III) Geology of the Comstock Lode and Washoe District, by George F. Becker	3,000	11 00	33,000 00
(IV) History of Comstock Lode, by Eliot Lord	3,000	1 50	4,500 00
(V) Copper-bearing Rocks of Lake Superior, by R. D. Irving	3,000	1 85	5,550 00
(VI) Older Mesozoic Flora of Virginia, by W. M. Fontaine	3,000	1 05	3,150 00
(VII) Silver-Lead Deposit of Eureka, Nev., by J. S. Curtis	3,000	1 20	3,600 00
(VIII) Paleontology of the Eureka District, by Charles D. Walcott	3,000	1 10	3,300 00
(IX) Brachiopoda and Lamellibranchiata of the Raritan Clays and Greensand Marls of New Jersey, by Robert P. Whitfield	3,000	1 15	3,450 00
(X) Dinocerata; a Monograph of an extinct order of Gigantic Mammals, by Othniel Charles Marsh	3,000	2 70	8,130 00
(XI) Geological History of Lake Lahontan, a Quaternary Lake of Northwestern Nevada, by Israel Cook Russell	3,000	1 75	5,250 00
Total	30,000	.....	100,290 00

Bulletins of the U. S. Geological Survey.

Name.	Edition.	Price per copy.	Total cost.
(1) Hypersthene-Andesite and Triclinic Pyroxene in Augitic Rocks, by C. Whitman Cross	3,000	\$0 10	\$300 00
(2) Gold and Silver Conversion Tables, by A. Williams, jr	3,000	05	150 00
(3) Fossil Faunas of Upper Devonian, &c., by H. S. Williams	3,000	05	150 00
(4) On Mesozoic Fossils, by Dr. C. A. White	3,000	05	150 00
(5) Dictionary of Altitudes in the United States, by Henry Gannett...	3,000	20	600 00
(6) Elevations in the Dominion of Canada, by J. W. Spencer	3,000	05	150 00
(7) Mapoteca Geologica Americana, by Jules and J. B. Marcou	3,000	10	300 00
(8) Secondary Enlargements of Mineral Fragments in Certain Rocks, by Irving & Van Hise	3,000	10	300 00
(9) Report of Laboratory Work, by Clarke & Chatard	3,000	05	150 00
(10) Cambrian Faunas of North America, by C. D. Walcott	3,000	05	150 00
(11) Quaternary and Recent Mollusca of the Great Basin, by R. E. Call	3,000	05	150 00
(12) Crystallographic Study of the Thinolite of Lake Lahontan, by E. S. Dana	3,000	05	150 00
(13) Boundaries of the United States and of the States and Territories, by Henry Gannett	3,000	10	300 00
(14) Electrical and Magnetic Properties of the Iron Carburets, by Barus & Strouhal	3,000	15	450 00
(15) Mesozoic and Cenozoic Palaeontology of California, by Dr. C. A. White	3,000	05	150 00
(16) Higher Devonian Faunas of Ontario County, New York, by J. M. Clarke	3,000	05	150 00
(17) The Development of Crystallization in the Igneous Rocks of Washoe, by Hague & Iddings	3,000	05	150 00
(18) Marine Eocene, Fresh-water Miocene, and other Fossil Mollusca, by C. A. White	3,000	05	150 00
(19) Notes on Stratigraphy of California, by G. F. Becker	3,000	05	150 00
(20) Contributions to the Mineralogy of the Rocky Mountains, by Cross & Hillebrand	3,000	10	300 00
(21) Lignites of the Great Sioux Reservation, Dakota, by Bailey Willis	3,000	05	150 00
(22) New Cretaceous Fossils from California, by Dr. C. A. White	3,000	05	150 00
(23) Junction between the Eastern Sandstone and the Keweenaw Series, by Irving & Chamberlin	3,000	15	450 00
(24) List of Marine Mollusca, by W. H. Dall	3,000	25	750 00
(25) The Present Technical Condition of the Steel Industry of the United States, by Phincas Barnes	3,000	10	300 00
(26) Copper Smelting, by Henry Howe	3,000	10	300 00
(27) Report of work done in the Division of Chemistry and Physics, mainly during the fiscal year 1884-'85	3,000	10	300 00
(28) The Gabbros and Associated Hornblende Rock, occurring in the neighborhood of Baltimore, Md., by George H. Williams	3,000	10	300 00
(29) On the Fresh-water Invertebrates of the North American Jurassic, by Charles A. White	3,000	05	150 00
(30) Second Contribution to the Studies on the Cambrian Faunas of North America, by Charles D. Walcott	3,000	25	750 00
(31) A Systematic Review of our Present Knowledge of Fossil Insects, including Myriapods and Arachnids, by Samuel H. Scudder	3,000	15	450 00
(32) Mineral Springs of the United States, by Albert C. Peale	3,000	20	600 00
(33) Notes on the Geology of Northern California, by Joseph S. Diller	3,000	05	150 00
(34) On the Relation of the Laramie Molluscan Fauna to that of the succeeding Fresh-water Eocene and other Groups, by Charles A. White	3,000	10	300 00
(35) The Physical Properties of the Iron Carburets, by Carl Barus and Vincent Strouhal	3,000	10	300 00
(36) Subsidence of Fine Solid Particles in Liquids, by Carl Barus	3,000	10	300 00
(37) Types of the Laramie Flora, by Lester F. Ward	3,000	25	750 00
(38) Peridotite of Elliot County, Kentucky, by Joseph S. Diller	3,000	05	150 00
(39) The Upper Beaches and Deltas of the Glacial Lake Agassiz, by Warren Upham	3,000	10	300 00
Total	117,000		11,400 00

Statistical Papers.

Name.	Edition.	Price per copy.	Total cost.
First	3,000	\$0 50	\$1,500 00
Second	3,000	60	1,800 00
Third	3,000	40	1,200 00
Total	9,000		4,500 00

Special editions of Statistical Papers and Bulletins.

Name.	Edition.	Price.	Total cost.
Mineral Resources of the United States (1882), by Albert Williams, jr	2,000	\$0 50	\$1,000 00
Mineral Resources of the United States (1883 and 1884), by Albert Williams, jr	2,000	60	1,200 00
Mineral Resources of the United States (1885), Division of Mining Statistics and Technology	2,000	40	800 00
Bulletin: A Dictionary of Altitudes in the United States, compiled by Henry Gannett	500	20	100 00
Bulletin: Mineral Springs of the United States, by Albert C. Peale	500	20	100 00
Total	7,000	.....	3,200 00

RECAPITULATION.

Series.	Aggregate number of volumes.	Aggregate cost.
Annual Reports	20,000	\$40,000
Monographs	30,000	100,290
Bulletins	117,000	11,400
Statistical Papers	9,000	4,500
Special editions	7,000	3,200
Total	183,000	159,390

By reason of the great responsibility thus incurred by the Geological Survey, it has been deemed necessary to develop a comprehensive yet simple method of regulating the custody of this property and of accounting for it in accordance with the principles of the custodial system already explained.

The Principles Recognized in the Document System.

Among the considerations upon which the document system has been founded are the following: (1) All matter published by the Survey shall be issued in sufficiently large editions to meet present requirements and to remain accessible to all important libraries and to students interested in the subjects treated for a considerable term of years; (2) the method of distribution shall be such as to insure the reception of the publications by public libraries, scientific and educational institutions, and individuals engaged in special investigations of related subjects; and (3) the cost of publication shall be reduced to a minimum.

(1) The question as to the size of the editions of Survey publications required to meet the wants of the people has been carefully considered by the framers of the law controlling their disposition; and the edition decided upon appears adequate to meet all demands, at least for the present.

(2) It should be borne in mind that the best method of distributing the publications of the Government depends upon their character; for the method which is best for one class of publications may not be the best for another class.

A large proportion of the publications of the Government are of general interest to the people, and it is desirable that they shall be widely and promptly distributed; and a method of distributing such publications gratuitously, through Congress and through certain Departments, has been adopted and has been found by experience to be at least measurably satisfactory. But with governmental endowment of special research in different lines—in anthropology and ethnology, in geography and geology, in geodesy, in the condition and changes of the coast, in sanitation and public health, in the various branches of zoölogy, in fish and fisheries, in agriculture, in chemistry, in entomology, in climate and weather prognostication, in veterinary science and the health of animals, in astronomy, &c.—there has grown up a special class of publications which, while of great value and, combined, of interest to all classes of people, are each of interest to only a limited number of the people of the country; and it has been found by experience that the ordinary

regulations for the distribution of public documents are unsatisfactory for these special publications. In the first place, while the officers intrusted with the distribution of documents may be supplied with the addresses of the recipients of public documents generally throughout the country, and may be able to extend their lists by means of applications and recommendations, they have not the addresses of the special students of the country to whom the documents would be of the greatest value; and, accordingly, students frequently fail not only to receive, but even to learn of the existence of such documents. Again, excessive editions of special reports are sometimes published, and the surplus remaining in the document rooms of Congress and of the governmental Departments becomes a burden; and scandal has resulted from the means adopted for the relief of this burden, and unwarranted reflections have thereby been cast upon the special publications of the Government. On the other hand, the editions published have in some cases been too small, and therefore inadequate to supply the needs of the libraries, the scientific and educational institutions, and the students of the country; the documents have consequently come to command high prices in second hand book-stores; and an undue burden is thereby imposed upon the individuals and institutions to whom the publications are necessary. So in various ways the general and gratuitous distribution of the special reports of the Government has been found by experience to be unsatisfactory.

It should be borne in mind, too, that the special publications of any Government are of interest not only to the citizens of that Government, but also to those of other nations. Science is cosmopolitan; and in order that the best progress shall be made, and that each country shall enjoy the benefits resulting from scientific investigations in other countries, it is necessary that there shall be international circulation of documents in which the result of research are recorded. The publications of the leading scientific, literary, and educational institutions and individuals of Europe, Asia, and Australasia, whether issued under governmental auspices or not, are in the leading public libraries and in many of the private libraries of this country, and constant use is made of them by the agents of the Government employed in special investigations; international associations and congresses of astronomers, geographers, and geologists, and of members of medical and other professions have been organized during recent years, and much benefit has resulted therefrom to American participants; and it is eminently desirable, in the interest of international comity and harmony as well as of scientific progress, that the special publications of this country relating to subjects of common interest throughout the globe shall be properly distributed abroad. Much thought has consequently been devoted to the development of a system of international exchanges which shall permit of the prompt distribution of the publications of the Survey among the leading foreign institutions of learning, and which shall secure from these institutions such of their publications as are useful to the Geological Survey.

The objections to the plan of general gratuitous distribution of documents embodying the results of special researches appear to be wisely met in the law regulating the disposition of the publications of the Geological Survey by sale and exchange, and the legislation upon this subject is therefore welcomed by the people of the country who are interested in the progress of research.

(3) Economy in publication is secured in the Geological Survey (1) by reducing the cost of editorial work and printing to a minimum, (2) by substituting graphic illustrations for verbal statement whenever practicable, and (3) by diminishing the cost of illustrations as far as is consistent with excellence, as has been set forth in preceding pages.

The Custody of Documents and the Mode of Distribution.

The custody of the documents distributed through the Survey is vested in the librarian. They fall into three classes, in which responsibility is incurred differently, viz: First, the regular editions of the monographs, bulletins, and statistical papers provided for by law, and that part of the edition of the annual reports provided for in joint resolution which is specifically designed for the use of the Survey; second, certain small special editions of some of the publications of the Survey which are printed under the authority of the Secretary of the Interior for gratuitous distribution; and, third, the small number of photographs used for purposes of exchange.

The first of these classes of documents is transferred to the office of the Survey from the Government Printing Office in lots, each accompanied by a receipt filled out with the name of publication, the style of binding, and the number of volumes; and after verification of the entries, this receipt is signed by the librarian, and a record of the transaction is made in a book kept for the purpose. Specimen entries in this book are appended:

RECORD OF DOCUMENTS.

Monograph IX.—Whitfield.

1886.		
May 17	Received from Public Printer.....	384
17	do	185
17	do	200
18	do	250
18	do	240
18	do	175
19	do	270
19	do	270
20	do	270
20	do	270
21	do	270
21	do	96
27	do	39

The publications of the second class are received in a similar manner from the document clerk of the Interior Department, and a similar record of the transaction is made, the receipt for each lot being returned to the Interior Department.

The photographs are printed in the laboratory of the Survey upon requisition of the librarian, countersigned by the chief clerk, and are receipted for by the librarian upon delivery. The following form is used:

REQUISITION FOR PHOTOGRAPHS.

Chas. C. Darwin.]

[No. 3.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., Sep. 1st, 1887.

J. K. HILLERS, *Photographer* :

Please furnish this office with the following :

Photographs.		Transparencies.	
20 x 24.....	8 x 10.....	30 x 34.....	11 x 14.....
17 x 20.....	5 x 8.....	20 x 24.....	8 x 10.....
14 x 17.....	4 x 6.....	17 x 20.....	5 x 8.....
11 x 14, 1 doz. panels.....		14 x 17.....	

Received Sep. 10th, 1887.

JAMES C. PILLING,
Chief Clerk.

CHAS. C. DARWIN,
Librarian.

Classified by the method of distribution, the documents are (1) those disposed of only by sale or exchange, including the monographs, bulletins, and statistical papers; (2) those disposed of either by regular exchange or gratuitous distribution, including annual reports and the small special editions of statistical papers and bulletins already mentioned; and (3) those disposed of by special exchange or distribution, including part of the annual reports, the special editions, and photographs, &c.; and the methods of accounting for the three categories are different.

1. A ledger account is opened with each of the first of these categories of documents, in which the librarian is charged with the various lots received from the Government Printer and credited with the sales and exchanges as made. This ledger account thus shows the status of the edition of each document at any time. It is balanced quarterly, and an account of the sales, with the receipts therefrom, is transmitted to the United States Treasury through the disbursing officer. A copy of the Treasurer's receipt for the moneys derived from the sale of the publications, covered into the United States Treasury each quarter, is filed with the ledger account. A sample leaf of this ledger is appended :

DOCUMENT LEDGER.

Mineral resources, 1885. Price, 40 cents.

	Brought forward.....	3,000	131
1887.			
Feb. 24	J. P. Rhoads, Park City, Mont.....		1
24	Jos. W. Richards, Philadelphia, Pa.....		1
24	Jno. A. McConnell & Co., Pittsburgh, Pa.....		1
24	John S. Unger, Steelton, Pa.....		2
24	Arthur Thacher, St. Louis, Mo.....		2
24	C. W. Seidel, Storm Lake, Iowa.....		1
25	A. F. Emrich, Monarch, Colo.....		1
25	R. C. Canby, Leadville, Colo., 80c.....		1
25	H. B. Nichols, Leadville, Colo.....		1
	Forward.....	3,000	142

The methods pursued in the making and recording of sales, and in the making and recording of exchanges, differ somewhat. When sales are made, the orders and remittances are immediately entered in a day-book, of which a sample leaf is appended :

DAY-BOOK.

Jan. 20	J. N. Smith, Island City, Oreg., 2d M. R.....	59	35
	E. M. Hale, Chicago, 32.....		60
	A. Perry, Pontiac, Mich., IX, X, XI, 27, 28, 29, 30, 31, 32, 33, 34, 35.....	8	75
	J. W. Morgan, Carb. June., Mo., 5, 13.....		30
	Chicago Copper Refining Co., 2, 7, 20, 26, 27, 2d M. R.....	1	05
Jan. 22:			
	H. W. Clarke, Syracuse, N. Y., ² 13.....		20
	F. A. Hill, Phila., 2d M. R.....		60
	W. G. Brown, Lexington, Va., 2d M. R.....		80
	W. R. Billings, Ottawa, 4, 11, 16, 18, 29, 30, 31.....		65
	M. Corsman, Paris, France (for O. Myer), 24.....		25
Jan. 24:			
	M. F. Richardson, Lebanon, N. H., ² 2d M. R.....	1	20
	C. J. K. Jones, Louisville, Ky., V, VI, 5, 10, 11, 16.....	3	25
	A. W. Eckhardt, Cleveland, Oh., 1 and M. R.....		60
		77	80

When the document is transmitted, the account, with the full address of the purchaser, is transferred to the ledger; and the entire correspondence, including the acknowledgment of receipt, is preserved. There is thus a triple record of the transaction, first in the day-book, second in the ledger, and third in the correspondence files.

The method of accounting for exchanges is more elaborate, and the records are kept in a different manner. The system of exchange is based upon a list of scientific institutions and individuals, both foreign and domestic, which was carefully prepared soon after the organization of the Survey, with the view of not only placing the publications of the Survey in the best hands, but also of securing in return the greatest possible amount of material required in the library. To insure accuracy and completeness, the list was subsequently revised by a commission of geologists appointed for the purpose; and it was finally referred to, and approved by, the Secretary of the Interior. The exchange list thus prepared is cautiously extended, as circumstances require, by the addition of addresses of new libraries and institutions issuing publications of value to the Survey, and of names of specialists who definitely express a desire to make an exchange with the Survey and specify the material they propose to transmit; when, if the proposal seems fair, the addition of the address is authorized. The addresses are revised and corrected from time to time.

The exchange list is printed upon galley slips, which are perforated, in order that they may be easily divided into separate address labels, each of which bears a number used in keeping account of sendings and returns. The use of printed address slips instead of written addresses not only economizes time, but greatly reduces danger of error. One of these address slips is appended hereto :

ADDRESS SLIP.

1	Ecole Supérieure des Sciences, Rue Rovigo, 104,
2 a	Algiers, Algeria, Africa.
[From the United States Geological Survey, Washington, D. C., U. S. A.]	

In addition to the ledger account with each publication, in which both sales and exchanges are entered, there is also assigned to each exchange publication a check list, in which are printed numbers corresponding to those borne upon the different slips of the exchange list. The first use made of this check list is in controlling the transmission of the documents and of the accompanying letters of advice. Checks indicating transmission are first made upon the list by the proper authority; the list is next used as a guide in attaching the printed slips to the parcels in the shipping room; it is then used in filling out and mailing the accompanying letters; it is used once more in the verification of the work of addressing the parcels and preparing the letters when the matter is ready for transmission; and it is finally used for recording, by means of suitable checks, the acknowledgments of receipt. The check list is thus a permanent record of (1) the transmission of the documents, and (2) of the reception thereof by the persons addressed.

The check lists are printed and bound in pamphlet form. Part of a page is appended, with the mode of record shown in the first column :

DOCUMENT CHECK LIST.

Check list of the sending of Fifth Annual Report between March 19, 1886, and May 8, 1886.

1	26	51	76	101	126	151	176
2✓	27	52	77	102	127	152	177
3✓	28	53	78	103	128	153	178
4	29	54	79	104	129	154	179
9	34	59	84	109	134	159	184
24✓	49	74	99	124	149	174	199
25✓	50	75	100	125	150	175	200

The check-list is supplemented by a series of charge cards, which are used also in the transmission of the documents distributed gratuitously. These cards are arranged, first, in groups or fascicles, in which the cards are of different colors and each is assigned to a certain series of documents while the initial card bears an address taken from the exchange list together with its serial number; and the groups themselves are arranged alphabetically under the addresses. Each card is divided into a number of rectangles, and each rectangle has printed within it a number or abbreviation referring to one of the documents of the series represented by its color; and there is space in the rectangle for recording the transmission of the document and also—when the same cards are used in the transmission of gratuitous publications—(1) the request for the document, when such is made; (2) the mailing of the letter of advice; and (3) the acknowledgment of receipt. Samples of these cards are appended:

DOCUMENT CHARGE CARDS.

[Color of card, white.]

For charging Annual Reports and monographs.

DOE, JOHN, *Hewitt, Wood Co., Wisconsin.*

A I, 188	1, 188	7, 188	13, 188	19, 188	25, 188
A II, 188	2, 188	8, 188	14, 188	20, 188	26, 188
A III, 188	3, 188	9, 188	15, 188	21, 188	27, 188
A IV, 188	4, 188	10, 188	16, 188	22, 188	28, 188
A V, 188	5, 188	11, 188	17, 188	23, 188	29, 188
A VI, 188	6, 188	12, 188	18, 188	24, 188	30, 188

[Color of card, green.]

For charging Bulletins.

POE, RICHARD, *Macon, Georgia.*

Bulletin 1, 188	7, 188	13, 188	19, 188	25 188	V. I, 188
2, 188	8, 188	14, 188	20, 188	26, 188	V. II, 188
3, 188	9, 188	15 188	21, 188	27, 188	V. III, 188
4, 188	10, 188	16, 188	22, 188	28, 188	V. IV, 188
5, 188	11, 188	17, 188	23, 188	29, 188	V. V, 188
6, 188	12, 188	18, 188	24, 188	30 188	V. VI, 188

[Color of card, salmon.]

For charging Mineral Resources.

BLACK, JOHN, *Adams, Mass.*

MR. 1., 188	7, 18	13, 18	....., 18	....., 18	....., 18
2, 188	8, 18	14, 18	....., 18	....., 18	....., 18
3, 188	9, 18	15, 18	....., 18	....., 18	....., 18
4, 188	10, 18	16, 18	....., 18	....., 18	....., 188
5, 188	11, 18	17, 18	....., 18	....., 18	....., 188
6, 188	12, 18	18, 18	....., 18	....., 18	....., 188

[Color of card, chocolate.]

For charging photographs.

AMBERLY (JAMES C.), *347 Chestnut street, Philadelphia, Pa.*

Date.		Photographs of—	Size.	No.
1887. Jan.	27	Zuni Pueblos	11 x 14	12

[Color of card, white.]

*For charging miscellaneous sendings.*HARRIS, ROBERT, *Pomfret, Windham Co., Conn.*

1886. July 27	"History of Lake Bonneville" (Gilbert).
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The system of record thus triplicated is still further supplemented by the retention of the receipts signed by the correspondents, which are preserved, in the manner described under the correspondence system.

There are accordingly four distinct records of the disposition of documents exchanged by the Survey: First in the ledger account with each document; second, in the check list; third, in the charge cards; and, fourth, in the receipts returned. These records are kept by different individuals, and check one another so completely that there is scarcely a possibility of error.

(2) The method of accounting for the second category of publications, *i. e.*, the regular exchanges which are not sold, including part of the annual reports and the small special editions already noticed, is identical with that followed in case of the first, except that ledger accounts are not kept with the editions.

(3) The mode of accounting for the documents distributed gratuitously or by special exchange is somewhat different. Instead of an exchange list there is a list of correspondents, which is not printed but kept in manuscript by means of the card system already described. A group of cards as large as may be required for each correspondent who has ever received a document issued by the Survey is kept under his name; upon these cards there are indicated every request made for publications, the transmission of every document sent to his address, and every acknowledgment of receipt that he has made; and the groups of cards are arranged alphabetically, so that the account of every correspondent is readily accessible.

The record of distribution of all three classes of documents described in the foregoing paragraphs is supplemented by the correspondence record.

Orders for the sale publications, requests for exchanges, and applications for the gratuitous publications of the Survey are usually made by letter; and in such cases the letter is preserved in the correspondence files of the library. There are certain cases, however, in which copies of publications issued for sale are needed in the prosecution of the work of the Survey, or are required for the use of officers of the Interior or other Departments. In these cases a special order for the document is made by the Director upon a form provided for that purpose, which is subsequently filed under an alphabetic arrangement in such manner that the documents disposed of in this way can be readily ascertained. A copy of the form is appended:

REQUISITION FOR DOCUMENTS.

DEPARTMENT OF THE INTERIOR,
U. S. GEOLOGICAL SURVEY,
Washington, D. C., Aug. 20th, 1887.

Send to Emil Broadhead, Flatwater, Nevada, one copy 6th An. Rep.
At whose request: J. W. Powell.
Order given Aug. 17, '87,
Parcel made up Aug. 21, '87.
Sent Aug. 21, '87. By whom sent: Wirt.

When documents are prepared for sending a letter of transmittal is also prepared, and, with a blank receipt and an envelope for its return, is inclosed in a larger envelope and mailed to the address of the correspondent. Forms of the letters of transmittal, of the receipt, and of the return envelope are appended.

LETTERS OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., Jan. 1st, 1887.

E. B. TRUE,
Gallatin, Missouri:

SIR: I send you by mail to-day a copy of the Copper-bearing Rocks of Lake Superior, by Prof. R. D. Irving.

Please fill out the inclosed receipt and return it to the Director of the U. S. Geological Survey, Washington, D. C.

By order of the Director.

I am, respectfully, yours,

JAMES C. PILLING,
Chief Clerk.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., Jan. 1st, 1887.

M. P. CRONIGER,
Havre, France:

SIR: I have the honor to send to your address Copper-bearing Rocks of Lake Superior, by Prof. R. D. Irving.

As this volume cannot be transmitted by mail, it is sent through the Smithsonian Institution's international exchange. It may not reach you, therefore, for some time after the reception of this letter.

Please fill out the inclosed receipt and return it, post paid, to the Director of the U. S. Geological Survey, Washington, D. C.

By order of the Director.

I am, respectfully, yours,

JAMES C. PILLING,
Chief Clerk.

RECEIPT FOR DOCUMENTS.

[A neglect to return this receipt carefully filled in below will be regarded as an indication that none of the future publications of the Survey are desired by you.]

Date, ———, 188 .

To the DIRECTOR U. S. GEOLOGICAL SURVEY,
Washington, D. C.:

SIR: I have to acknowledge the receipt of one copy of the Copper-bearing Rocks of Lake Superior, by Prof. R. D. Irving.

Name, ———.
Permanent address, ———.
City or town, ———.
country or State, ———.

ENVELOPE FOR RECEIPT.

Return penalty envelope.

DEPARTMENT OF THE INTERIOR,
U. S. GEOLOGICAL SURVEY.
Official Business.

Any person using this envelope to avoid the payment of postage on private matter of any kind will be subject to a fine of Three Hundred Dollars

To the DIRECTOR,

UNITED STATES GEOLOGICAL SURVEY,

Washington, D. C.

This envelope can only be used for reply to official communications. The address must not be changed.

DOCUMENTS.

The letters of transmittal accompanying the gratuitous sendings and special exchanges are press-copied. The returns from all classes of sendings are filed in accordance with the correspondence system of the library.

Additional records of the custody and transmission of documents are provided in the registry system of the Post-Office Department and in the Smithsonian exchange system. By the former all domestic, and by the latter all foreign, sendings are conveyed to their destination. The methods are as follows:

After the documents are prepared for transmission, but before they leave the custody of the librarian, they are separated into "domestic" and "foreign" portions, the former of which are transmitted by registered mail, while the latter are conveyed through the foreign exchange of the Smithsonian Institution.

Parcels of documents going abroad are transmitted in lots to the Secretary of the Smithsonian Institution, and specific instructions for forwarding accompany each lot. A letter of advice is communicated at the same time to the Secretary, as well as the receipts prepared for his signature, which specify the number of parcels and the addresses of all. The forms used for letter and receipt are as follows:

LETTER USED IN SMITHSONIAN EXCHANGE.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., Jan. 1, 1887.

To the SECRETARY OF THE SMITHSONIAN INSTITUTION:

SIR: I have the honor to send herewith, for transmission through the Smithsonian International Exchange, one package for the address given below.

Yours, very respectfully,

J. W. POWELL,
Director.

E. M. YEASTMANN,
Woolwich, England.

RECEIPT USED IN SMITHSONIAN EXCHANGE.

SMITHSONIAN INSTITUTION,
Washington, D. C., ———, 188—.

To the DIRECTOR OF THE UNITED STATES GEOLOGICAL SURVEY:

SIR: I have to acknowledge the receipt of one package for transmission through the Smithsonian International Exchange to the address given below.

Very respectfully,

S. F. BAIRD,
Secretary.

E. M. YEASTMANN,
Woolwich, England.

The receipt is duly signed and returned by the Secretary of the Institution, and the receipts are filed in chronologic order in the office of the Survey. In addition a separate account of all parcels transmitted through the Smithsonian exchange is kept in a book provided for that purpose called the "weight book," a sample entry in which is appended:

WEIGHT BOOK.

				lb.	oz.
Junc.	21	M. R. 3.	R. Friedlander & Son, Berlin, Ger.....	13	08
"	"		Kongl. Kommerce Kollegium, Stockholm, Swe.....	2	01
				S. C. BROWN, JR.	

A special record book has been devised for use in the registration of the domestic parcels by which much labor is saved both to the Survey and to the Post-Office Department, and by which a complete record of the registration of each parcel is kept in duplicate, one copy being preserved in the office of the Survey, and the other in that of the registry clerk of the Washington post-office. A sample leaf of this record book is appended:

REGISTRATION RECORD.

United States Geological Survey.—Account of registered mail.

Survey No.	Name.	Post-office.	State.	Dates upon which a package was sent to each.			Address opposite which the date stands in the column below.
				Min. Res., 1882.	Min. Res., 1883.	Min. Res., 1885.	
1155	Geol. survey, Ark ..	Little Rock.	Ark.	Aug. 10, '85	Jan. 26, '86	Feb. 26, '87	
1156	Eugene W. Hilgard.	Berkeley ...	Cal..	Aug. 10, '85	Jan. 26, '86	Feb. 26, '87	
1157	Joseph Le Conte....	.....do .....	. do..	Aug. 10, '85	Jan. 26, '86	Feb. 26, '87.	

Summary.

The document system thus described appears to be as simple as is practicable consistent with the fundamental principles set forth in describing the custodial system of the survey. It is believed to be so complete that error or peculation could be readily detected at any time after the documents leave the hands of the Public Printer and before they reach the hands of the domestic institution or individual for whom they are designed, or until they have passed into the custody of the Smithsonian Institution, the foreign exchange system of which is so widely and so favorably known. The system is eminently satisfactory in all respects, save that some delay unavoidably occurs in the transmission of documents to foreign correspondents. Every effort has been made to reduce the delay to a minimum, and it is believed that no further improvement in this direction can be made without important changes in the laws relating to the foreign mail service.

This branch of the Survey is in charge of Mr. C. C. Darwin, the librarian.

THE LIBRARY SYSTEM.

The General Plan of the Library.

The establishment of a geologic library as one of the accessory divisions of the Survey has been fully described in the annual reports of the survey.

As has been pointed out in these reports, it is essential that the geologic investigator, if he desires to maintain a place in the foremost ranks of geology, shall keep himself constantly familiar with the current geologic literature of this and other countries; and since it is the policy of the Survey to employ the ablest geologists it is important that the means of keeping well abreast of geologic science shall be afforded them. Accordingly provision has been made for securing the publications of foreign institutions of learning and science and of scientific specialists as promptly as possible, both by exchange in the manner already set forth, and by purchase. No effort is made, however, to build up a general scientific library, but only to make such a collection of scientific books, periodicals, pamphlets, and maps as relate specially to geology or will be of use in the prosecution of the work of the Survey; but certain scientific books and periodicals are of a general character, including contributions to geology in connection with writings relating to other matters, and in order to secure the geologic matter it is sometimes necessary to obtain publications devoted to general scientific subjects. Thus the library of the Survey is fairly supplied with current scientific literature in general, and is especially rich in current geologic literature.

The operations of the Geological Survey extend over the entire country; and in order to avoid duplication of labor it is necessary that geologists shall be familiar with the work of other students in the regions upon which they are engaged. It is therefore important that the library of the Survey shall include all publications upon the geology, &c., of the country, whether reports of investigations undertaken by the Federal Government, reports of State surveys, or memoirs embodying results of the work of unofficial geologists. Great efforts have been made to render the Survey library as complete as possible with respect to these domestic publications, and all the more important are now on its shelves.

The general principles of geologic science and of geologic technology are best set forth in the standard treatises and manuals, of which some are classic and invaluable to the student, while many others are of value, and all contain more or less information of use to the investigator in special subjects. It is desirable that the geologist shall have ready access to these standard publications, by the use of which the value of his work is greatly increased; and provision has been made for obtaining such standard treatises on geology as have already been published, as well as those which appear from time to time. This class of publications forms a considerable part of the contents of the library.

Although the most important publications in geology as in other sciences are made either in the form of considerable volumes, or in that of articles in standard periodicals, many treatises of considerable importance are either privately printed or published in small editions, generally in pamphlet form; and in order that the library shall be complete it is necessary that these scattered and ephemeral publications shall be collected and preserved. The library is rich in geologic literature of this character.

There are in the library five principal classes of publications, including those just mentioned, viz: (1) official reports by the Federal Government and States, and other publications relating to special localities, (2) standard geologic treatises, (3) scientific periodicals, (4) fugitive pamphlets, etc., and (5) maps. Although the Survey has been in existence but seven years, the number of such documents already in the library is

large, reaching 19,501 volumes, 26,100 pamphlets, and 8,000 maps; and a systematic arrangement of the contents of the library is essential to its utility. It is important, too, that a systematic method of accounting for and regulating the custody of the property contained in the library shall be followed, since its contents are of large money value.

A comprehensive library system has accordingly been devised. It is founded upon the considerations (1) that the contents of the library shall always be readily accessible to the collaborators and employes of the Survey, and (2), that the custody of and responsibility for every book, pamphlet, and map shall be constantly fixed by documentary evidence.

The Accessions.

The greater part of the accessions to the library come in the form of exchanges, either by mail or through the Smithsonian Institution, and others are obtained by purchase, sometimes in considerable lots, but generally by single volumes or small lots. Great care is required in making out lists for purchase to avoid duplication or purchase of irrelevant matter on the one hand, or neglect of desirable publications on the other. All orders for the purchase of books are approved by the Director.

Current accessions in small lots, coming by mail or otherwise, pass through the hands of the chief clerk. A record is kept of the larger lots, either in the account with the Secretary of the Smithsonian Institution, in case they come through the Smithsonian exchange, or by the property clerk if they are shipped direct.

Foreign purchases of books for the library are exempt from duty by statute; and when information has been received from a foreign dealer that a lot of books has been shipped upon a certain steamer, a letter is written to the Secretary of the Interior for communication to the Secretary of the Treasury, requesting that the collector of customs at the proper port be instructed to admit the case free of duty. The letter is written upon the accompanying form:

REQUEST FOR FREE ENTRY.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., June 1st, 1886.

To the honorable the SECRETARY OF THE INTERIOR

SIR: I have the honor to request that the honorable the Secretary of the Treasury be asked to instruct the collector of customs at the port of New York to admit free of duty and charges one box, consigned to John Doe 714 Broadway, N. Y., marked J. D. 207, which has arrived at that port from London, England, per steamer Circassia. The case contains publications destined exclusively for the United States Geological Survey, and is to be delivered to John Doe, for J. W. Powell, Director, at Washington, D. C.

The articles named (publications) comprise the entire contents of the above case, and "the price to be paid for the same does not include the duty payable on such articles" when imported by private parties.

I am, sir, with respect, your obedient servant,

J. W. POWELL,
Director.

On receipt by the librarian, all documents are stamped with the name of the institution and the year, and entered in the accessions catalogue of the library, which contains a short title of each book received, including its condition, binding, &c. A sample leaf of the accessions catalogue is appended:

ACCESSIONS CATALOGUE.

United States Geological Survey—Accessions Catalogue of the Library.

Date.	Author.	Title.	Size.	Place.
1886.				
Jan. 9	Geikie, James	The Great Ice Age	8°	London.
Jan. 9	Daubrée	Études synthétiques de géologie expérimentale.....	8°	Paris.

Date.	Bind- ing.	Source.	Price.		Remarks.	Number of vol- umes.
			Foreign.	United States.		
1874	Cloth.	Purchased		\$3 50		1
1879	½ mor.	Exchange, Bossange				1

When a number of volumes thus prepared have accumulated, the Secretary of the Interior is requested upon the accompanying form to make a requisition for binding them.

REQUISITION FOR BINDING.

No. 109.]

DEPARTMENT OF THE INTERIOR,
 UNITED STATES GEOLOGICAL SURVEY,
 Washington, D. C., July 20, 1877.

SIR: Please cause to be bound for this office the following-described books of which* ——— inclosed:

No. of copies.	Title or description of work.
	(A separate requisition must be made for each item.)
6 volumes.	Geological Society, London.

INSTRUCTIONS.

Lettering will be found on slips contained in each volume.
 Very respectfully,

J. W. POWELL,
Director.

To the Hon. SECRETARY OF THE INTERIOR.

* Copy of work to be printed; specimen leaf of blank book to be made or list of books to be bound, as the case may be, must be sent WITH the requisition covering the work.
 Packages of material—envelopes papers, books, &c.—for the Public Printer should be marked to show the name of the Bureau and number of the requisition to which they pertain, and sent to the stationery and printing division to be forwarded WITH the requisition from there.

[Indorsement.]

No. ———

REQUISITION FOR PRINTING OR BINDING.

U. S. GEOLOGICAL SURVEY OFFICE.

.....
, 188..
 Cost, \$.....

PUBLIC PRINTER'S ESTIMATE OF COST.

(Dated), 188..

Composition		
Putting plates to press		
Presswork		
Folding		
Paper		
Ruling		
Binding		
Stereotyping		
Total		

Received....., 188..

Returned....., 188..

The requisition for binding is sent from the stationery division of the Interior Department to the Government bindery, and the librarian of the Survey is advised of the requisition number; when the books are transmitted to the Government bindery

Work delivered ———, 188—.
 (Signature of person to whom delivered:)

with the number of requisition marked upon each parcel. At the same time two letters of transmittal are prepared, one for the superintendent of the stationery division of the Department of the Interior, through whom the books are sent, and one for the superintendent of the bindery. These letters are prepared upon the appended forms, and, with the accompanying lists of volumes to be bound, are copied in a letter-press book kept for that purpose:

LETTER TO GOVERNMENT BINDER.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., September 13, 1887.

SIR: I send you through the chief of the stationery division of the Interior Department, twelve volumes, as specified in the accompanying list, which I should be pleased to have bound for the Geological Survey on requisition 9031, Interior Department.

By order of the Director.

Yours, with respect,

JAMES C. PILLING,
Chief Clerk.

To JAMES WHITE,
Foreman Government Bindery.

LETTER TO STATIONERY CLERK.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., September 13, 1887.

SIR: I send you twelve volumes, as specified in the accompanying list, which I should be pleased to have bound for the Geological Survey on requisition 9031, Interior Department.

By order of the Director.

Yours, with respect,

JAMES C. PILLING,
Chief Clerk.

To L. Q. C. LAMAR, JR.,
Chief of the Stationery Division, Interior Department.

On its return from the bindery each volume is checked off the press-copied list in which it is charged to the bindery, and is labeled and numbered, and if necessary, stamped, in the manner already indicated.

Maps in single sheets generally require to be mounted on muslin. This is done in the geographic division upon requisition signed by the librarian and counter-signed by the chief clerk, and receipts are given by the librarian when the maps are returned. A record of the work is thus kept by means of the requisitions themselves. The forms of face and reverse of the requisition for map mounting are appended.

REQUISITION FOR MAP MOUNTING.

[Face of requisition.]

No. 901.]

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
October 10, 1887.

HENRY GANNETT, *Chief Geographer:*

Please furnish to this office for Mr. E. J. Good, 1 Mt. Shasta sheet, mounted.

JAMES C. PILLING,
Chief Clerk.

Received Oct. 10th, 1887.

E. J. GOOD.
(Over.)

[Reverse of requisition.]

Mr. J. COLLINS:

Please comply with the within request.

HENRY GANNETT,
Chief Geographer

Remarks: (Make special).

Received Oct. 10, 1887. Completed Oct. 13, 1887.

NOTE.—In the case of extended compilations, details of draftsmen, &c., a written application should be submitted, stating specifically the amount and character of the work required.

A special index catalogue of the maps is then prepared, in which they are arranged geographically; and each is stamped with the number assigned to it under the geographic arrangement. A leaf of this index catalogue is appended:

MAP CATALOGUE.

Reymann's Special-karte. Berlin. 332 sheets	1100
Prussia, Kön. Preuss. Generalstab. Atlas. 68 sheets	1101
Hohenzollernsche Lande. Berlin, 1863. 9 sheets.....	1102
Trigonometrische punkte. K. Preuss. Bur. d. Landestriangulation. 32 sheets	1103
Dreiecksnetz I and II ordnung d. Preuss. monarchie. 7 sheets.....	1104
Schmiedbaren eisens in Preussen, 1880. Berlin, Naumann. 2 sheets.....	1105
Roheisens in Preussen, 1880. Berlin, Naumann. 2 sheets	1106
Mineralische brennstoffe in Preussen, 1881. Berlin, Naumann. 2 sheets.....	1107
Stemkohlengebirges, &c., v. Halle. Berlin, 1870. Laspeyres. 3 sheets	1108
Schleswig-Holstein, Meyn., 1881. Berlin, Landesanstalt.....	1109
Geol. Karte d. Insel Sylt., Meyn., 1876. Berlin	1110

The full title of each book, pamphlet, or map thus received and noted in the general accessions catalogue, in the periodicals catalogue, or in the map catalogue is then transcribed upon a card, which gives in addition the price, accessions number, and the date of receipt, of the document. A sample card is appended:

CATALOGUE CARD.

GEIKIE (ARCHIBALD).

1886. \$7.00 (St.) 16312.	Text-book of geology. | By | Archibald Geikie, ll. d., f. r. s., | director-general of the geological survey of Great Britain and Ireland, | [etc., 4 lines]. | With illustrations. | Second edition, revised and enlarged. | London: | Macmillan and co. | 1885 | 8°. xvi, 992 pp. incl. 1 pl. 1 tab. 1 pl.
---------------------------------	--

These cards constitute, when arranged alphabetically, a complete card catalogue of all documents which have passed into the custody of the library.

Bound volumes are then assigned to cases and shelves, an orderly and systematic arrangement being adopted, in order that persons only moderately familiar with the library may easily find publications relating to any area or subject; the pamphlets are assigned to pamphlet cases, in which they are arranged alphabetically; and the maps are placed in cases constructed for the purpose, in which the arrangement is such that they are readily accessible.

The accessions having thus become a part of the library, they are ready for circulation. Every volume bears the Survey stamp, printed in indelible ink upon the title page, and upon a certain page of the text, and in addition bears the accessions number and the Survey label; every pamphlet bears the Survey stamp upon its title page and elsewhere within it; and every map bears the Survey stamp and its catalogue number. There is also a record of every document in the card catalogue, of all except periodicals in the accessions catalogue, of the periodicals in the periodicals catalogue, of the maps in the map catalogue, and of most of the documents in the correspondence files of the library.

The Circulation.

The library is designed for the use of the various collaborators and employés of the Survey, and they are authorized to make requisition for any book, pamphlet, or map contained therein, except certain standard works of reference which are constantly kept in the library.

The circulation is effected by means of "call cards," which are at the same time requisitions and receipts for the book, pamphlet, or map desired. The card bears the name of the author or of the series to which the desired work belongs, the title of the work and its date, and the signature of the maker of the requisition, together with his address if not in Washington; and when the volume is issued, the accessions number is inscribed upon the card, together with remarks concerning its condition if necessary. These cards are kept alphabetically arranged, and afford a means of quickly ascertaining what volumes have been legitimately withdrawn from the library. A specimen card is appended:

4402 INT—29

LIBRARY CALL CARD.

UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., January 14, 1887.

Received from the library of the U. S. Geological Survey the following work:

Author.	Title.	Vols.	Date.
Geological Society of London	Proceedings, 1878.....	1	1878

[Name:] JOHN SMITH,
[Address:] _____

Applicant will write one title only on this card.
Librarian will return the card if the work is not sent, or when the work is returned.

An account is kept also upon a card with the maker of each requisition in such manner that the documents in his possession, with their titles and accessions numbers and the dates of requisition, can be seen at a glance. This series of cards is also arranged alphabetically; and the accounts of the users of the contents of the library thus kept afford a check upon the other series. One of these cards is also appended:

LIBRARY ACCOUNT CARD.

SMITH (JOHN).

6003							
Geikie	1-27-87						
14768							
Dana	1-30-87						
17624							
Le Conte	2-13-87						

When documents are returned the call cards are either restored to their makers or destroyed, and the date of return is entered upon the account card.

By means of this system account is kept of the custody of each document in the library, and in case of loss, destruction, or injury the responsibility therefor can be immediately fixed.

The Use of Books from the Library of Congress.

Although the Survey library is measurably complete in the technic literature which it seems desirable to keep, there are occasional demands for works not found within it which may be found in the Congressional Library; and through the courtesy of Hon. A. R. Spofford, the Librarian of Congress, arrangements have been made for drawing certain books from that library for the use of the collaborators of the Survey.

Requests for such books are made out by persons desiring them, and are communicated through the chief clerk. A blank form is provided for this purpose. Blank forms are also provided for notifying the users of books belonging to the Library of Congress that their return has been requested; for notifying the Librarian of Congress that books have been returned; and for obtaining his formal receipt therefor. Copies of these blanks are appended:

REQUEST TO LIBRARIAN OF CONGRESS.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., August 1, 1886.

Hon. A. R. SPOFFORD,
Librarian of Congress:

SIR: I would respectfully request the following named books for use in this office:

Author.	Title.	Date.	Vols.
Dabney.....	Elements of Geology.....	1863	1

By order of the Director.
Yours, respectfully,

JAMES C. PILLING,
Chief Clerk.

NOTICE TO RETURN BOOKS.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., June 1, 1887.

JOHN SMITH,
Geological Survey, City:

SIR: The books mentioned below, belonging to the Library of Congress, have been asked for by that library. You will please return them at an early day.

Author.	Title.	Date.	Vols.
Deming	Glacial Epochs.....	1831	1

I should be glad to return all not now in use.
Yours, with respect,

JAMES C. PILLING,
Chief Clerk.

NOTICE OF RETURN OF BOOKS.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., August 10, 1887.

Hon. A. R. SPOFFORD,
Librarian of Congress:

SIR: I return by bearer, with many thanks for their use, the following-named books received from the Library of Congress:

Author.	Title.	Vols.	Received.
Dabney.....	Elements of Geology.....	1	Aug. 1, 1887

By order of the Director.
Yours, respectfully,

JAMES C. PILLING,
Chief Clerk.

RECEIPT FOR RETURN OF BOOKS.

LIBRARY OF CONGRESS,
Washington, D. C., August 10, 1887.

Received from the United States Geological Survey the books mentioned below:

Author.	Title.	Vols.	Procured from library.
Dabney.....	Elements of Geology.....	1	Aug. 1, 1887

A. R. SPOFFORD,
Librarian of Congress.

Bibliographic work.

The employes of the Survey engaged in library work acquire a certain familiarity with the contents of the books, periodicals, and pamphlets which they are constantly handling, and are thus enabled to assist the investigator materially in his study of the literature of the subject upon which he may be engaged. The knowledge thus acquired by the library force is utilized in another way.

With the growth of scientific literature a need for bibliographies is developed. When properly constructed a bibliography is to the literature of any special subject what the index is to a single volume; and the preparation of such bibliographies as experience shows to be necessary adds greatly to the value of libraries. Now, the library of the Geological Survey affords unexampled facilities for the preparation of certain geologic bibliographies, the need for which has long been felt by American geologists. Two different bibliographies have accordingly been projected, and work upon them is systematically carried forward in the library. A large part of the work is done during the intervals of leisure occurring in routine work; but in order to keep the

subject well in hand the bibliographic work is made the special duty of one of the library force.

Personnel.

The library is in charge of Mr. C. C. Darwin, who has at present eleven assistants; but the duties of the division include not only the library work proper and the bibliographic work just mentioned, but also the distribution of documents and all correspondence pertaining to documents and library matters.

THE STATIONERY SYSTEM.

The stationery required for the use of the Survey in office and field is not purchased out of the annual appropriations, but is issued from the stationery division of the Interior Department upon requisitions of the Director.

The following forms of requisitions are used:

Reg'r. No. ———.] [Abstract No. ———.

GENERAL STATIONERY REQUISITION.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
OFFICE OF THE DIRECTOR,
Washington, D. C., July 3, 1885.

To the CHIEF CLERK, DEPARTMENT OF THE INTERIOR:

SIR: Please cause the articles of stationery, specified below, to be delivered for official use in this office.

JAMES C. PILLING,
Chief Clerk.

Number of item on schedule.	Quantity.	Articles. (Put but one item on a line.)	Cost.
3	1 gross....	Rubber pen-holders	\$4 00

(On the margin:) Please put the articles on the requisition in the order in which they appear on the schedule.

Received the above July 7, 1885.

JAMES C. PILLING,
Chief Clerk.

NOTE.—Please receipt and return this requisition to the stationery division immediately after the articles are delivered.

SPECIAL STATIONERY REQUISITION.
(Requisition for blanks and blank books.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
OFFICE OF THE DIRECTOR,
May 10, 1887.

To the CHIEF CLERK, DEPARTMENT OF THE INTERIOR:

SIR: Please cause the office blanks, as specified below, and of which samples are inclosed herewith, to be delivered for official use in this office.

JAMES C. PILLING,
Chief Clerk.

Number of blanks on catalogue.	Quantity.	Title of blank or blank book. (Put but one item on a line.)
1—056	500	Weekly Reports.

(On the margin:) Please put the blanks on the requisition in the order in which they appear in the catalogue.

Received the above May 15, 1887.

JAMES C. PILLING,
Chief Clerk.

NOTE.—Please receipt and return this requisition to the stationery and printing division immediately after the articles are delivered.

 Not more than one month's supply of blanks should be ordered at once.

The stationery thus drawn from the Interior Department includes not only the articles and materials commonly included under that designation, but also (1) certain drawing instruments and materials, and (2) the various blanks used in the transaction of the business of the different divisions of the Survey.

Drawing-instruments and materials not obtained by requisition upon the Interior Department are purchased out of the annual appropriations, and in the interest of economy such outside purchases are reduced to a minimum. But care is taken to avoid false economy in the purchase of instruments and materials and consequent crippling of work. Instruments are less expensive than time; and whenever it appears that the best interests of the public service will be subserved by the use of articles and materials not found in the lists of the Interior Department, these are purchased either from the lowest and best bidder under the competitive system, or at current market rates, as may be found most expedient in special cases, in the manner already set forth.

It is the policy to provide suitable printed forms and blanks for use in the transaction of business with the view of not only reducing clerical labor to a minimum, but of also reducing to a minimum the danger of error in making the various records required in the business system herein described. A great variety of cards and other blanks for bibliographic purposes, catalogues, and various other needs are also provided under the stationery system.

(1) There is a series of cards devised for keeping record of earthquake observations, as follows:

EARTHQUAKE RECORD.

Place of observation : Summerville, S. C.
 Date of observation : Sept. 10, 1886.
 Facts obtained from Clarence E. Harris.
 Shocks :
 Number, two.
 Time, 9.30 a. m. ; 9.48 a. m.
 Intensity, 3.
 Direction, NE. to SW.
 REMARKS: Very slight, accompanied by peculiar rumbling sounds.

(2) There are different forms for schedules used in collecting data for the reports upon mineral resources published by the Survey, which are appended.

RECORD OF MINERALS, ETC.

Schedule A.]

[Page 300.

STATE OR TERRITORY, MONTANA.

Ores, minerals, and mineral substances of industrial importance, which are at present mined.

[Reported by J. Middleton.]

Mineralogical name.	Common name.	Remarks.
Agate	Agate	Found near Helena.

Schedule B.]

[Page 299.

STATE OR TERRITORY, MONTANA.

Ores, minerals, and mineral substances of industrial importance and known occurrence, but which are not at present mined.

[Reported by J. Murphy, jr.]

Mineralogical name.	Common name.	Remarks.
Feldspar.....	Feldspar.....	.....

Schedule C.]

UNITED STATES GEOLOGICAL SURVEY, DIVISION OF MINING STATISTICS AND TECHNOLOGY.

List of persons, firms, and corporations furnishing information for or in any way facilitating the preparation on the statistical report of the mineral industries of the United States.

[Confidential.]

Reported by Mr. C. E. Mango, in charge of office. Forwarded to central office Aug. 10, 1886.

Instructions.—Agent will please send list to David T. Day, jr., on completion of work, retaining a copy for reference. Arrange names according to the mineral products with which they are concerned, so that the list may be conveniently used in further work. The number of copies of the report for — available for gratuitous distribution not being known, the agent will please indicate the degree of indebtedness by writing in the fifth column the numbers 1, 2, or 3, thus grouping correspondence into three classes, of which those marked “1” will take precedence over those marked “2,” &c.

Subject: (Mineral product, &c.)	Mine, works, or locality, &c., about which information has been given.	Name of person, firm, or corporation giving information.	Post-office address of person, firm, or corporation giving information.	Their claim for copies of the report.	Remarks.
Gold.....	Marley Mining Co ..	C. M. Marley.....	Helena, Mont.....	.....	.....

(3) There are labels for the record books of the geographic division; as follows:

LABELS FOR RECORD BOOKS.

DEPARTMENT OF THE INTERIOR, UNITED STATES GEOLOGICAL SURVEY.	
Book No. 9003. Case B.	
Shelf, or drawer: Top.	
Locality:	
Season of 1886.	J. M. YOTES, <i>Topographer.</i>

DEPARTMENT OF THE INTERIOR. UNITED STATES GEOLOGICAL SURVEY. GEOGRAPHIC RECORDS.	
Book No. 301.	
Character of record: Field notes.	
Division: Appalachian division.	
Party: J. M. Yotes.	
Season of 1886.	J. M. YOTES, <i>Topographer.</i>

(4) There are forms for weekly reports of work by the topographers of the topographic division, represented by the following:

WEEKLY REPORT.

DEPARTMENT OF THE INTERIOR,
 UNITED STATES GEOLOGICAL SURVEY,
 DIVISION OF GEOGRAPHY,
 Warrenton, Va., October 3, 1884.

Mr. GILBERT THOMPSON,
Topographer:

SIR: The following is a detailed report of work performed by myself, assisted by Mr. Richard Roe during the week ending October 3, 1884:

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Total.
Miles of roads or streams meandered.....	10	9	10	8	0	10	47
Number of instrumental stations made.....	2	0	1	0	0	1	4
Number of instrumental stations platted....	1	0	0	0	0	0	1
Hours necessarily employed in going to and from work	4	1	3	5	0	3	16

Area surveyed, in square miles.....
 Cost of subsistence while employed in field work \$
 Cost of transportation while employed in field work.....

Total expense
 Elevations of stations have been determined and recorded as the work progressed.

REMARKS.—Will break camp next Tuesday and start for neighborhood of Fredericksburg.
 Very respectfully,

JOHN DOE,
Assistant Topographer.

(5) There is a form for the record of transit observations; as follows:

TRANSIT RECORDS.

Transit observations and reductions.

Date, _____

Star.....						
Appearance	o /	o /	o /	o /	o /	o /
Declination						
Position, clamp.....						
Level, E.—W.....						
Level reversed.....						
Thread I.....	<i>h. m. s.</i>	<i>h. m. s.</i>	<i>h. m. s.</i>	<i>h. m. s.</i>	<i>h. m. s.</i>	<i>h. m. s.</i>
II.....						
III.....						
IV.....						
V.....						
VI.....						
VII.....						
Mean						
Correction for rate.....						
Correction for inclination.....						
Correction for collimation						
Correction for azimuth.....						
Reduced transit.....						
Tabular A. R.....						
Correction of chronometer.....						

Normal equations. $a =$ Station. Transit.
 $c =$ ϕ Chro.
 δT λ Observer.

(6) There is the following form for the record of geodetic co-ordinates:

GEODETIC RECORDS.

Name: _____ State: _____

Location	
Latitude	
Method	
Longitude.....	
Method	
Authority.....	
Reference	
Remarks	

(7) There is a form for the record of analyses performed in the division of chemistry, and another form for the use in the preparation of reports thereon. A copy of the latter is appended:

REPORT OF ANALYSIS.

DEPARTMENT OF THE INTERIOR.
 UNITED STATES GEOLOGICAL SURVEY, DIVISION OF CHEMISTRY.

Report of analysis No. 3100, B.
 Material received from John Doe, geologist, United States Geological Survey.

Greensand marl similar to that found in Maryland.

Examined by Frank Smith and reported August 13, 1887.

F. W. CLARKE,
Chief Chemist.

(8) There are various blanks prepared for the record of observations and measurements made in the geographic division. Certain standard forms of note books are also used in the geologic divisions. Specimens of these various forms are appended:

BOOK FOR COMPUTATION OF TRIANGLES.

Computing letter.	Logarithms of their sines.	Calculation of the sides.	Sides in yards.	Designation.
S.		log. R. L = a. c. log. sin S = log. sin R =		
R.		log. L. S = log. R. L. + { a. c. log. sin S. } = log. sin L =		
L.		log. R. S =		

Names of stations.	Position.	Observed angles.	Correction by L. S.	Corrections arbitrary.	Spherical angles.	Spherical excess.	Final plane angles.
	Sought, Right, (Known side.) Left,	o ' "	"	"	"	"	' "

BOOK FOR COMPUTATION OF GEODETIC DISTANCES.

Triangle.	Station.	Spherical angles.	s. e.	Plane angles.	Log. sines.

Figure adjustment in Book , page . Computed by

Names of stations.		Latitudes.	
		$L' = L - u'' (1 + \epsilon^2 \cos^2 L) \cos Z - \frac{1}{2} \sin 1'' \sin^2 Z u''^2 (1 + \epsilon^2 \cos^2 L) \tan L.$	
yards.	Latitude (L).....=		
	log. K (yds.).....=		$\frac{1}{2} \sin 1''$=
	log. $\frac{1}{N \sin 1''}$=		2 log. sin Z.....=
	log. u''.....=		2 log. u''.....=
	log. (1 + $\epsilon^2 \cos^2 L$).....=	=
	log. cos Z.....()=		log. tan L.....=
	log. 1st term.....=		log. 2d term.....=
	1st term.....()=		2d term.....=
	2d do.....()=		
	δL()=		L + L''.....=
L.....=			
K =	Latitude (L').....=	$\frac{L + L''}{2}$=	

Longitudes.	Azimuths.	Remarks.
$M' = M + \frac{u'' \sin Z}{\cos L'}$	$Z = 180^\circ + Z - (\delta M) \frac{\sin \frac{L + L'}{2}}$	
Longitude M.....=	Azimuth Z.....=	
Log. sin Z.....()=	180° + Z.....=	
Log. u''.....=		
Log. cos L'.....()=	Log. sin $\frac{L + L'}{2}$=	
Log. (δM).....()=()=	
()	log. δZ()=	
(δM).....()=	δZ()=	
.....=	180° + Z.....=	
M'.....=	Azimuth Z'.....=	

BOOK FOR COMPUTATION OF BAROMETRIC ALTITUDES.

Base barometer No. ———, book No. ———.
 Field barometer No. ———, book No. ———.

—————, *Computer.*

Notation.	Computation.	Computation.	Computation.	Computation.
Date				
Base station				
New station				
Mean latitude				
No. of synchronous obs'ns. h				
h' Instrumental correction				
Corrected h'				
r r' r-r'				
t t'				
t+t'				
t+t'-64 Computation of (A) Approx. D t+t'-64				
Quotient				
Table I for h Table I for h'				
Difference Table II for r-r'				
Approx. D. (A) $\frac{D \times (t + t' - 64)}{9 \times 100}$				
Second approx. D Correction for Table IV				
Difference of altitude Alt. of reference station				
Alt. of station Mean altitude				
Remarks				

BOOK FOR COMPUTATION OF GEODETIC CO-ORDINATES.

Azimuth a:	-	
Spherical angle:	-	
Azimuth a':	-	
$\delta a + 180^\circ$	-	
Azimuth (a):	-	

GEODETIC CO-ORDINATES.

LATITUDE.

LONGITUDE.

L:		λ:
δ L	Geo. Pos. No.	δ λ
L'	Geo. Pos. No.	λ'

Computation for latitude:

Computation for longitude:

log. K
 " B
 " $\cos a'$

log. (I)

log. K^2
 " C

" $\sin^2 a'$

log. (II)

log. D
 " $[I+II]^2$

log. (III)

log. E
 " $K^2 \sin^2 a'$
 " (I)

log. (IV)

log. K
 " $\sin a'$
 " A
 " $\sec. L'$

log. (V)

δ λ

Computation of azimuth:

log. (V)
 " $\sin. \left(\frac{L+L'}{2}\right)$
 " $\sec. \left(\frac{\delta L}{2}\right)$

log. (VI)

δ a

Azimuth check.

(I)			
(II)	+		
		[I+II]	
(III)	+		
(IV)		log. " "	
		" [I+II] ²	
δ L			

Check:
 Spher. angle
 at

Computation of Azimuth a, in Book _____, page _____. Spherical angle and distance = K, in Book _____, page _____, Triangulation No. _____.
 - - - Station. Computed by _____.

Township ———.
Range ———.
——— Principal meridian.

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

BOOK FOR METEOROLOGICAL RECORDS.

U. S. GEOLOGICAL SURVEY.

— Division, barometer No. — ;

Observer.

Date.		Cistern barometer.			Temp. and inst. error.	Barometer reduced.	Thermometers.				Winds.		Clouds.		Remarks.
Day.	Hour.	Upper vernier.	Lower vernier.	A. T.			D. T.	W. B.	Max.	Min.	Dir.	Force.	Per cent.	Species.	

BOOK FOR TRANSIT RECORDS.

BOOK FOR RECORD OF LATITUDES.

Station,
Instrument,

Record.

No.	Star No.	Cat.	N. or S.	Micrometer.	
					D.

Z. T. latitudes. Date,

Observer,

Level.		Time.	Obs. No.	Remarks.
N.	S.	... m. s.		

BOOK FOR RECORD OF BASE MEASUREMENTS.

Time.	Whole number.	No. of bar.	Temperature.		Inclination.		Correction.
			Obs'd.	Mean.	+	-	

Balanced.	Correction for inclination.	Remarks.

BOOK FOR ITINERARY METEOROLOGICAL RECORD.

U. S. GEOLOGICAL SURVEY.

— Division. Party No. —

Locality.	Date.		Barometer.		Thermometer.			Remarks.
	Day.	Hour.	Upper vernier.	Lower vernier.	A. T.	D. T.	W. B.	

The variety of observations recorded by the geologist is so great that it is impracticable to arrange in advance for their record. In consequence, simple blank books are used for geologic purposes.

As shown by the list published by the Interior Department, two hundred and thirty-nine blank forms are printed for the use of the Geological Survey.

Extended use of blank forms is made in what may be designated the autographic card system of keeping records. It has already been shown that the library circulation is effected by means of "call cards" made out and signed by persons desiring books. The same method is pursued in other departments. Requisitions for photographs, for map-mounting, for topographic instruments and supplies, &c., are made out upon blank forms printed on card-board; receipt is acknowledged on the same card when delivery is made, and the cards themselves, when arranged alphabetically, afford a complete and convenient record of the transactions. The requisitions for stationery themselves are based upon the same principle. The following is the form of requisition used under the stationery system:

STATIONERY REQUISITION.

DEPARTMENT OF THE INTERIOR, UNITED STATES GEOLOGICAL SURVEY.

Feb'y 13, 1887.

To the CHIEF CLERK :

Please issue to Mr. Gilbert the following articles of stationery for office use :

- 2 packages envelopes.
- 1 quire letter paper.
- 1 box rubber bands—medium.

State quantities, and inclose samples when necessary.
Give office number of blank books and forms.

JAMES C. PILLING,
Chief Clerk.

G. K. GILBERT,
Chief of Division.

Approved :

The methods employed in the stationery system are based upon that adopted for the Interior Department generally, and correspond in most respects with those pursued in the different Departments of the Government; but an important modification in method is made in one particular.

It is an implied term in the contract under which agents of the Government are employed that while engaged in office work they shall be supplied with necessary stationery. Now, as fully set forth in preceding paragraphs, one of the fundamental principles in the policy of the Geological Survey is that in the custody of property of all kinds there shall not only be documentary responsibility, but the actual responsibility shall coincide therewith. This principle is applied in the stationery system. The requisitions for stationery are made out in the name of the individual who requires the article or instruments; they are countersigned by the chief of party or division; they are then approved by the chief clerk; and these requisitions are filed alphabetically under the names of the persons to whom the property was issued. So there is a personal responsibility for every article issued from the stationery department, and that responsibility is not distributed over a division, a party, or even a single room. The chief of division shares responsibility with the subordinate only in that he indorses his request, and the chief clerk shares responsibility only in that he indorses the certificate of the superintending officer; but it is the individual who actually uses the property who is held responsible therefor upon the records of the institution. It is believed that this method of fixing responsibility tends decidedly to check extravagance and waste.

Stationery, like all other property used by the Survey, is classed as expendible and non-expendible, the former including paper, envelopes, pens, ink, pencils, and other articles rapidly destructible in use or quickly exhausted in ordinary operations, and the second including more durable articles, such as shears, ink-stands, rulers, &c. Departmental responsibility for the expendible stationery terminates and individual responsibility begins when the articles pass upon requisition from the custody of the stationery clerk into the hands of the maker of the requisition; and there is no further record of the property. Non-expendible articles are, however, charged against the persons to whom they are issued on requisition in a book kept by the stationery clerk for that purpose; the condition of the account with the individual is examined from time to time; and new articles are not issued until it has been ascertained by the chief clerk that there is sufficient reason for dropping the old from the record.

There is a stationery room in the office of the Survey, which is in charge of a stationery clerk, assisted by one or more messengers as may be required from time to time.

THE CORRESPONDENCE SYSTEM.

The correspondence of the office is carried on in three divisions, viz: in the miscellaneous division, in the office of the chief disbursing clerk, and in the library. In the first two divisions the system is that adopted by the Interior Department; but it has been found economic of time and labor to modify this system by substituting a card index of letters received for the index entered in a book kept for the purpose. In the card index the letters are entered under the names of their authors upon cards of uniform size, which are then arranged alphabetically and chronologically in specially constructed cases. By means of the card index the arrangement of entries is alphabetic, not only under initial letters but throughout; and finding is thereby greatly facilitated. Again, the cards afford space for more extended briefs and memoranda than could be entered in a volume as commonly arranged. Moreover, the card index is capable of indefinite extension; and at the same time entries may be expunged or modified without defacement. It is believed that by means of the substitution of the card index for the volume index fifty per cent of the time occupied in consulting the correspondence files is saved.

A sample index card is appended.

LETTER INDEX CARD.

Goodwin, C. J., Denver, Colo.

901	States that borings will soon be commenced for artesian water. Remarks:
-----	--

Letters received are immediately briefed and entered in a book kept for the purpose (a sample leaf of which is appended), which thus forms a chronologic record of the incoming correspondence. They are then filed or referred, as the case may be, and the index card is prepared; and if the letter is referred, the brief and reference inscription are press-copied. Letters referred, or otherwise allowed to pass out of the division in which they belong, are charged in pencil on the index cards to the person receiving them, and on their return this charge is expunged.

At the end of the year the letters are removed from the temporary files in which current correspondence is kept, and are bound; and the card index is type-written and also bound.

BOOK OF LETTERS RECEIVED.

Date received and file number.	Name and address of writer.	Date and purport of letter.	Reference or action.
July 3	White, James	Bridgeport, Conn., July 1, 1887. (Sends sample rock for analysis.)	Referred to Diller.

Letters sent are commonly prepared by the Director of the Survey, or under his immediate direction; but they are occasionally prepared by other officers of the Survey. All are suitably initialed, and, after examination by the chief clerk, are signed by that officer or by the Director, as the case may be. They are then press-copied and subsequently transcribed in permanent ink in a book of letters sent. A sample leaf of this book is appended:

BOOK OF LETTERS SENT.

9371	Mr. LAWRENCE JOHNSON, <i>U. S. Geol. Survey, Tuscaloosa, Ala.:</i> I send you herewith report of analysis made upon your request of July 10th.	WASHINGTON, D. C., Aug. 1, 1887. JAMES C. PILLING, <i>C. C.</i>
------	--	---

The correspondence carried on in the library is of special character, relating exclusively to documents and library matters; and in the interests of economy authority has been obtained from the Secretary of the Interior to so far modify the correspondence system of the Department as to merge it into the document and library systems already described.

As each letter is received there is imprinted upon it a stamp bearing the date and spaces for recording the date of answer and the disposition made of the letter; and the name of the author is clearly written at the head of the sheet. The letters thus stamped are treated as index-cards, and arranged in file cases provided for the purpose, from which they are removed at the end of the year for binding or preservation in portfolios. The letters sent are press-copied, and the substance of the letter is transcribed upon a card; and these cards are arranged alphabetically and chronologically in cases provided for the purpose. A sample card is appended:

LIBRARY CORRESPONDENCE CARD.

Lawson, Hon. John A., United States Senate, Washington, D. C.

1885.	June 9 Inform you that a copy each of the Second and Third Annual Reports of the Survey have been sent to W. W. Austin, Rockton, Ill	38-285
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A large part of the correspondence of the library is of such character as to permit of the use of blank forms. A number of these, which are self-explanatory, are appended:

LETTERS USED IN LIBRARY CORRESPONDENCE.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., June 10th, 1887.

SIR: The work mentioned by you in your letter of June 6th is not published by the U. S. Geological Survey. Application for the same should be made to U. S. Department of Agriculture, division of Entomology.

By order of the Director:

JAMES C. PILLING,
Chief Clerk.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., July 3rd, 1886.

The work referred to in your letter of July 1st will be sent to you on receipt of \$12.00. There are no copies for gratuitous distribution.

By order of the Director:

JAMES C. PILLING,
Chief Clerk.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., Aug. 3, 1887.

DEAR SIR: In answer to your application for "The Mineral Resources of the United States," I beg to inform you that a copy will be sent to you on receipt of the price, fifty cents.

By order of the Director:

JAMES C. PILLING,
Chief Clerk.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., May 10th, 1887.

Messrs. D. APPLETON & Co.,
Publishers,
New York, Y. N.:

GENTLEMEN: The U. S. Geological Survey has failed to receive the numbers of the serial published by you indicated on the adjoining leaf.

If you will kindly forward the missing numbers, and thereby enable us to complete and bind the volumes of which they form part, you will much oblige the Survey.

By order of the Director:

Yours, respectfully,

JAMES C. PILLING,
Chief Clerk.

[On following sheet:] Vol. xxxi, No. 3. Popular Science Monthly. (Jul.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., Aug. 10th, 1887.

SIR: Your letter of the 7th, requesting _____ is received, and has been forwarded to the Hon the Secretary of the Interior, by whom said publicat on is distributed.

By order of the Director:

Very respectfully,

JAMES C. PILLING,
Chief Clerk.

To C. M. BELLEW,
Grasslands, Wyoming.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., January 1, 1886.

SIR: Having found it necessary to revise the list of institutions and individuals to whom the publications of this office have hitherto been sent, I have the honor to request you to fill in the particulars required by the form attached hereto, and return it to me at your earliest convenience.

The new list will be compiled from the replies received to this circular, and where no reply is received it will be taken as an indication that none of the future publications of the Survey are wanted.

I have the honor to be,
Yours, with respect,

J. W. POWELL,
Director United States Geological Survey.

[On following sheet.]

Date: _____.

To the DIRECTOR OF THE
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C.:

SIR: Please enter the address given below on the exchange list of your office for future issues of its publications:

Name: _____

Permanent address: _____

City or town: _____

State or country: _____

The above-named institution or individual has forwarded to the United States Geological Survey from time to time as issued, the following, viz: _____

All official communications should be addressed to the Director of the U. S. Geological Survey.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., Aug. 13th, 1887.

To C. J. BLUMENBERG,
Pittsburg, Pa.:

SIR: In response to your letter of Aug. 3rd, asking that Fifth Annual Report U. S. G. S. be sent to your address, I regret to inform you that our supply of that work is entirely exhausted.

By order of the Director:

Yours, respectfully,

JAMES C. PILLING,
Chief Clerk.

DEPARTMENT OF THE INTERIOR.

UNITED STATES GEOLOGICAL SURVEY.

To the REVIEWER:

It is requested as a special favor that a copy of the issue containing your notice of this book be mailed to the

DIRECTOR, U. S. GEOLOGICAL SURVEY, WASHINGTON, D. C.

By order of the Director.

JAMES C. PILLING,
Chief Clerk.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, Aug. 3, 1887.

To E. M. BAILEY,
London, Ontario, Canada :

SIR: I take pleasure in sending you by mail one copy each of the 3rd, 4th, and 5th Annual Reports. Please fill out the inclosed receipt and return it to the Director of the United States Geological Survey, Washington, D. C.
By order of the Director.
Yours, respectfully,

JAMES C. PILLING,
Chief Clerk.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, Aug. 31st, 1887.

To J. B. RICH,
New York, N. Y. :

SIR: I have the honor to acknowledge, for the library of the United States Geological Survey, the receipt of pamphlet No. 3, Proceedings National Academy of Dental Science, August, 1886, to August 1887, and to thank you most cordially for the same.

By order of the Director.
I am, with respect, your obedient servant,

JAMES C. PILLING,
Chief Clerk.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., Aug. 1st, 1887.

Hon. A. L. MANGAULT,
Davenport, Iowa :

SIR: The library of the United States Geological Survey is now established on a permanent basis; and it is the purpose to make it as nearly complete as possible, so as to meet the wants of the members of the Survey and the working geologists of the country.

Although it is the residuary legatee of the previous geological surveys, it has not profited much by their accumulations, and suffers from the opinion entertained in many quarters that back sets of periodical publications are already on its shelves.

At the present time it is especially desirable to secure complete sets of European serials relating to geology and cognate subjects, but many independently published monographs and other papers are also needed.

The Survey has now commenced three series of publications, viz: reports, monographs, and bulletins. A list of those completed and of such as are in course of preparation will be found on the inclosed circular.

By act of Congress, the monographs and bulletins can be procured only by exchange or purchase, and the reports also can be procured in the same manner.

The Director of the Survey will be pleased to place any society, geological survey, or other institution issuing works relating to geology and kindred subjects, upon its permanent list, to which all of its publications will be sent in return for the like favor from such society, survey, or other institution. It is also deemed desirable to make exchanges with individuals.

The Director will be pleased to be informed if the proposed exchange meets with your approval.

I am, yours, with respect,

J. W. POWELL,
Director.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., June 3rd, 1887.

E. P. HUFFY,
San Francisco, Cal. :

SIR: In response to your letter of June 1st, I beg to refer you to the inclosed circular regarding the monographs of this Survey.

By order of the Director.
Yours, respectfully,

JAMES C. PILLING,
Chief Clerk.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., Sep. 5th, 1887.

J. C. GOODE,
Yreka, Cal. :

SIR: In compliance with your request of the 30th ult., I send you by mail to-day 6th Annual Report U. S. G. S.

Please fill out the inclosed receipt and return it, post paid, to the Director of the U. S. Geological Survey, Washington, D. C.

By order of the Director.
Yours, respectfully,

JAMES C. PILLING,
Chief Clerk

All official communications should be addressed to the Director of the U. S. Geological Survey.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., Oct. 17th, 1887.

To C. D. DAWES,
Gaithersburg, Md. :

I have the honor to inform you that it is now three months since we sent to your address, as given above, a package containing publications of the United States Geological Survey, and that we hold no acknowledgment from you therefor.

The statute under which these publications are issued will forbid any further sending until we receive your receipt for books already sent, or your publications in exchange.

We shall be grateful for a speedy reply, and for any suggestions you may make with regard to the address or mode of transmission.

Yours, with respect,

J. W. POWELL,
Director.

Address all letters and parcels to the Director of the U. S. Geological Survey.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., Jan'y 3rd, 1887.

To C. C. WILSON,
Hyattsville, England.

I have the honor to inform you that it is now three months since we sent through the Smithsonian Institution to your address, as given above, one package containing publications of the United States Geological Survey, and that we hold no acknowledgment from you therefor.

The statute under which these publications are issued will forbid any further sending until we receive your receipt for books already sent, or your publications in exchange.

We shall be grateful for a speedy reply, and for any suggestions you may make with regard to the address or the mode of transmission.

Yours, with respect,

J. W. POWELL,
Director.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., Feb'y 4th, 1886.

B. W. MILTON,
Chester, Pa. :

SIR: Your letter of the 1st inst., requesting a copy of Report of the Bureau of Education, is received, and your address, together with a request that the work may be sent to you, has been forwarded to the honorable the Secretary of the Interior, by whom this publication is distributed.

By order of the Director.

Very respectfully,

JAMES C. PILLING,
Chief Clerk

THE GENERAL ADMINISTRATIVE SYSTEM.

The administrative authority vested in and the responsibility borne by the Director are either expressed or implied in the organic law of the Survey, or else clearly indicated by the general laws, customs, and regulations relating to the administrative affairs of the Federal Government. The manner in which the administrative function is exercised and in which responsibility is met has been sufficiently set forth in preceding paragraphs.

The directions in which and the extent to which administrative authority is delegated and responsibility transferred in the scientific and business branches of the Survey have been shown in detail in the description of the business systems of the Survey. As set forth therein, large authority is delegated in the scientific branch of the Survey; and responsibility is secured through the method of allotments under which the officers in charge assume responsibility, not only to the Director but also to the scientific public, for the work performed in their divisions. In the non-scientific branches, on the other hand, authority is not delegated except so far as is essential to the successful performance of the work of the Survey, and responsibility is secured through a system of regulations, by which disbursing officers are bonded, by which records and accounts are systematically kept, by which individual responsibility for all fiscal transactions is shown by documentary evidence, and by which the responsibility for all property in the control of the Survey is similarly fixed.

Certain important administrative duties grow out of these methods and regulations, foremost among which is that of securing the observation of the methods and regulations adopted throughout the organization. Practical considerations have necessitated the division of this and related duties into (1) those which are necessarily per-

formed by the Director in person, and (2) those which, while performed under the immediate supervision of the Director, may yet be delegated to a trustworthy officer.

(1) Excellence of scientific work is secured in the first place by publishing the results thereof under the names of the authors, who thereby assume responsibility not only to the Survey but to the scientific public for their work, and secondly, by careful examination and discussion, and when necessary thorough revision, of the reports prepared for publication. The Director assumes a limited responsibility to the scientific world for the excellence of the work performed in the Survey—a responsibility equaled in weight and in importance to the country only by his financial responsibility, and it is therefore incumbent upon him to personally determine the quality of all material published by the Survey. This duty cannot be delegated except in a limited degree.

In order that the adoption of bad or extravagant methods and unwise policies may be prevented, it is necessary that the Director shall be constantly informed of the progress of the work of the Survey in every part of the country. Accordingly, chiefs of divisions are required to submit detailed monthly reports of operations, with such statements of plans and purposes as may be required to indicate the character of prospective operations. For like reasons chiefs of divisions are required to present plans and estimates for the ensuing year toward the end of each fiscal year, and use is made of these statements in preparing the general plan of operations for the Survey for each year. It is for the same reasons, too, that the administrative reports of chiefs of divisions are prepared annually. By all of these means the Director is enabled to determine at any time the precise condition of the work in all parts of the country, to plan for extension or contraction in different areas, to modify methods, and to adjust means to ends in such manner as to produce the best results to the Survey and to the country at large.

A circular letter relating to monthly reports of progress has been prepared. A copy is appended:

REQUEST FOR MONTHLY REPORT.

Official communications should be addressed to the Director of the U. S. Geological Survey.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., March 1, 1887.

L. C. RAE,
Meridian, Miss. :

SIR: Your attention is called to the following extract from the Regulations of the U. S. Geological Survey:

"It is important that the Director should be constantly informed of the progress of the Survey in all its departments in field and in office. For this purpose a monthly report is required from the chief of each division and from the head of each independent party. The report should be made at the end of the month, and should clearly but briefly explain the operations of that month.

"The chief of a division should require his assistants in charge of sub-parties to make their monthly reports promptly, that they may be incorporated in the report of the division."

In addition to this a monthly statement made to the Secretary of the Interior by the Director is based upon these reports; therefore they should be forwarded promptly upon the close of the month.

Your report for February, 1887, has not been received.

By order of the Director.

Very respectfully,

JAMES C. PILLING,
Chief Clerk.

In order that the general public may be kept advised of the general progress of the Survey, the Director digests and summarizes the monthly reports of chiefs of divisions, and promptly submits the summaries to the Secretary of the Interior for such use as he may see fit to make of them. It is for the same reason that an annual report of operations, including the administrative reports of the chiefs of divisions, is made to the Secretary of the Interior and by him submitted to Congress.

The financial responsibility of the Director is large, and has not only led to the development of the fiscal system of the Survey, but renders it necessary that he shall personally examine the records of all fiscal transactions and satisfy himself as to the necessity and integrity of each in the manner described in an earlier part of this report.

The library is an essential part of the machinery of the Survey, and upon its completeness the efficiency of the scientific work is in a measure dependent. It is desirable, however, that the expenditure of funds for the purchase of books shall be reduced to a minimum; and it is therefore important that the system of exchanges be rendered as complete as possible. Accordingly, the Director gives personal attention to all matters concerning the growth of the library, including orders for purchases and additions to the exchange list.

The expense of illustrating and publishing the reports of the Survey is large, and much thought has been given to this subject with the object of reducing both the

cost of illustrations and the cost of publication as far as is consistent with satisfactory presentation of the results of the work. Plans for securing these ends have been developed, as already indicated; but special questions arise in connection with nearly every publication, and it is important that they shall be carefully considered. All such questions are submitted by the chief of the illustrations division to the Director, who thus gives personal attention to all essential matters pertaining to illustrations; and all business with the Public Printer is transacted by him in person.

One of the results of the division of labor extending throughout the Survey is that collaborators frequently find it necessary to call upon other specialists for assistance in their investigations. For example, the geologist may need to have certain fossils identified, certain rocks, minerals, or soils analyzed, certain ores assayed, or certain rocks examined microscopically; and sometimes the same geologist may at the same time require assistance from several divisions of the Survey, and might, if there were no restrictions, absorb the energies of a considerable portion of the Survey force, to the detriment of its general progress. It is necessary to prevent undue concentration, to properly distribute the energies of the Survey in the most desirable channels, and to keep the researches in different directions and the work of the different divisions as nearly in line as practicable. To secure this end it is provided that all requisitions for the collaboration of specialists or for the assistance of other divisions shall be specifically authorized by the Director.

Thus the Director supervises not only in general, but also in detail, all of the scientific operations of the Survey and all of the results of such operations, and in addition all matters pertaining to the fiscal system of the Survey, to publication and illustration, and to the conduct and growth of the library.

(2) Under the organization of the Geological Survey, as affected by the provisions of sections 177-179, Revised Statutes, the chief clerk is the second administrative officer of the institution, and various administrative duties of somewhat less importance are delegated to that officer; but they are performed under the general direction and constant supervision of the Director.

In the principal office of the Survey at Washington, there are employed in the work of the Survey from 70 persons in summer, to 225 persons in winter, in a building of 78 rooms on five floors; and it is necessary that the best systems of work shall be adopted, that the time of all employes shall be advantageously employed, and that regulations concerning hours of labor, specific duties, &c., in accordance with governmental usage, shall be made and enforced. Attention to such matters is one of the functions of the chief clerk.

The time records of the different divisions are supervised by the chief clerk. Requests of employes to be excused from duty during office hours are acted upon by him; requisitions for leave of absence, which are made to the Secretary of the Interior, also pass through his hands, and the leave to which the applicant is entitled is decided by him; and the weekly time reports, which are kept in the different office divisions, are submitted to him. There is a blank form used for requests for temporary absence from duty, a series of forms used in connection with leaves of absence, and a form for the weekly time report, copies of which are appended.

REQUEST FOR EXCUSE FROM DUTY.

DEPARTMENT OF THE INTERIOR,

UNITED STATES GEOLOGICAL SURVEY,

Sep. 10th, 1887.

J. M. Shuster desires to be excused from duty for three hours this day.

Recommended:

ARNOLD HAGUE,

Chief of Division.

Approved:
JAMES C. PILLING,
Chief Clerk.

REQUEST FOR LEAVE OF ABSENCE.

[The number of days to which an applicant is entitled must be certified to by the proper officer or person designated for that purpose.]

DEPARTMENT OF THE INTERIOR,
U. S. GEOLOGICAL SURVEY,
Washington, June 1st, 1887.

THE SECRETARY OF THE INTERIOR :

SIR: I have the honor to request a leave of absence for the period of ten days, to date from and including the 6th day of June, 1887.

I have been absent since January 1st of this year, as follows :

- days annual leave.
- days sick leave (certificate of physician furnished).
- days excused.
- days without pay.

(Sign full name, with Miss or Mrs., if a lady :)
(Grade and salary :)

R. M. OSBORNE,
Clerk, \$1,000.

Entitled to 30 days.
J. C. PILLING.

[Indorsement.]

DEPARTMENT OF THE INTERIOR,
U. S. GEOLOGICAL SURVEY,
June 1st, 1887.

R. M. Osborne applies for leave of absence for ten days from June 6th.
Respectfully recommended:

H. GARRETT,
Geologist.

Respectfully forwarded, approved for ten days.

J. W. POWELL,
Director.

DEPARTMENT OF THE INTERIOR.

Leave for — days granted, —, 188—, and Director so informed.

NOTICE OF GRANTING OF LEAVE.

DEPARTMENT OF THE INTERIOR,
U. S. GEOLOGICAL SURVEY,
OFFICE OF DIRECTOR,
Washington, June 4th, 1887.

Mr. R. M. OSBORNE,
Geol Survey :

The Secretary of the Interior has granted you leave of absence for ten days, beginning June 6th, 1887, and ending June 15th, 1887, both days inclusive.

On your return to duty please note below the day and hour you report at your desk, and return this notice to me.

Respectfully, &c.,

J. W. POWELL,
Director.

Returned to duty June 15th, 1887, 9 a. m.
(Sign:)

R. M. OSBORNE.

WEEKLY TIME REPORT.

DEPARTMENT OF THE INTERIOR, UNITED STATES GEOLOGICAL SURVEY OFFICE.

Time report of editorial division, for the week ending July 9, 1887.

Names of employes.	Monday.			Tuesday.			Wednesday.			Thursday.			Friday.			Saturday.			Remarks.
	Arrived.	Departed.	Absent.	Arrived.	Departed.	Absent.	Arrived.	Departed.	Absent.	Arrived.	Departed.	Absent.	Arrived.	Departed.	Absent.	Arrived.	Departed.	Absent.	
W. F. Robinson.....	9	4	...	9	4	...	9	4	....	9	4	....	Sick.	1	9	4	...	Certificate attached.	
W. D. Jones.....	9	4	...	9	4	...	9	4	....	9	4	....	9	4	...	9	4	...	
A. M. Smith.....	9	4	...	9	4	...	9	4	....	9	4	....	9	4	...	...	...	1	Excused.

The above statement is, in my opinion, correct.

THOMAS HAMPSON, *In charge.*

To the CHIEF CLERK, *Geological Survey Office.*

[Indorsement.]

GEOLOGICAL SURVEY OFFICE.

TIME REPORT OF THE EDITORIAL DIVISION.

For week ending July 9, 1887.

THOMAS HAMPSON, *In charge.*

There is also a form for recording absences of employes, and another form is used in preparing a monthly report of absentees. Copies of these forms are appended:

REPORT OF ABSENCES

J. Doe, August, 1887

Date.	Annual.	Sick.	Excused.	Election.	Other.	Without leave.	Without pay.	Remarks.
August	1	3	9	0	0	2	5	

MONTHLY REPORT OF ABSENTEES.

Names.	Office.	Annual.	Sick.	Excused.	Election.	Other.	With out leave.	Without pay.
C. E. Goodwin	Permanent	3	0	0	0	0	0	0
M. J. Ellick	Temporary	1	0	3	0	0	0	0

Names.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Remarks.
C. E. Goodwin	3	0	0	0	0	0	0	0	0	0	0	0	3	
M. J. Ellick	1	0	0	0	0	0	3	0	0	0	0	0	4	

The *personnel* of the Survey is considerable, and the employes are widely diverse in grade, and come from all portions of the country. It is desirable to have a personal record of each employe, and such record is kept under the supervision of the chief clerk, upon alphabetically-arranged cards provided for the purpose, a sample of which is appended:

RECORD OF EMPLOYÉS.

Name: J. L. Lawdre. Position: copyist.
 Salary: per annum \$600; per mo. —; per day \$—.
 Whence appointed: Georgia.
 Original appointment by Sec'y Int., dated Aug. 1st, to take effect Aug. 1st.
 Present appointment by Sec'y Int., dated Aug. 1st, to take effect Aug. 1st.
 Oath dated Aug. 1st, 1887.
 Where born: Atlanta, Georgia.
 Legal residence: State, Georgia; Atlanta, town, 3rd dist.
 Assignment: 188
 Recommended by Hon. Wilkinson Wilkins and J. M. Bar, esq.
 Remarks:

Large quantities of stationery and considerable office furniture, &c., are necessarily used in carrying on the work of the Survey. As already stated, it is an implied term in the contract of an employe of the Government in Washington that he shall be supplied with necessary furniture, stationery, &c.; but in order that waste may be prevented it is necessary that requisitions for such property shall be carefully scrutinized by an administrative officer, and only indorsed after it has been found that the property is actually required. It is accordingly provided that all requisitions for office furniture, stationery, drawing instruments and materials, laboratory apparatus and materials, &c., shall pass through the hands of the chief clerk, and shall receive his indorsement before being honored.

In addition to the instruments, &c., required for the use of the geographic division, a large amount of miscellaneous property is necessarily purchased for the use of the different geologic and topographic parties in different portions of the country. A portion of this property can be most advantageously acquired in the field, but a considerable portion can be more economically purchased in Washington and shipped to the points at which the parties outfit; and there is an incidental advantage in making pur-

chases in Washington, in that the keeping of property records and accounts with allotments is thereby facilitated. In the outfitting of each party, therefore, it is desirable to consider carefully the relative economy of purchase in the field, and of purchase in Washington, which involves the payment of costs of transportation. This difficult duty is delegated to the chief clerk, and all requisitions for miscellaneous property required in the outfitting of parties pass through his hands, and the best method of making purchases is decided by him.

As already shown, large use is made of photographs, sketches, &c., both for working purposes and for purposes of illustration; and large number of maps are mounted, both for the use of the library, and for the use of geologists and topographers employed in the field. In these processes time and materials are consumed, and it is desirable that such consumption shall be reduced to a minimum by reducing the use of such photographs and maps as far as is consistent with the satisfactory execution of the work of the Survey. Accordingly, it is provided that such work shall be done on requisition, and these requisitions pass through the hands of the chief clerk who satisfies himself as to the necessity for the work before affixing his signature.

Certain laboratory materials—*e. g.*, the chemicals used in photographic work—are expensive when purchased in small quantities, and can be advantageously obtained only in large quantities. It is the policy to make careful estimates in advance of the quantity of such materials required for periods of a month or more, and to purchase in quantity. To facilitate this, blanks have been prepared, upon which specific requisitions for such materials are made. A copy of the blank is attached.

REQUISITION FOR PHOTOGRAPHIC SUPPLIES.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, August 1, 1887.

To the DIRECTOR U. S. GEOLOGICAL SURVEY:

SIR: I would respectfully request that there be furnished, for the use of the photographic laboratory, the following supplies:

Quantity.	Articles.	Amount.	Quantity.	Articles.	Amount.
.....	Acid, acetic, No. 8.....per lb.....	.....	.....	Iron, citrate of, and	.....
.....	glacial.....per lb.....	.....	.....	ammonia.....per oz.....	.....
.....	nitric C. P.....per lb.....	.....	.....	Iron protosulph.....per lb.....	.....
.....	commer-	.....	.....	sulph. and am-	.....
.....	cial.....per gal.....	.....	.....	monia.....per oz.....	.....
.....	muiriatic.....per lb.....	.....	.....	Iodine, cryst, resub-	.....
.....	oxalic.....per lb.....	.....	.....	limed.....per oz.....	.....
One pound.	pyrogallie.....per lb.....	\$3 00	.....	Mercury, bi-chloride.....per oz.....	.....
One pound.	Glycerine.....per oz.....	0 30	.....	Paraffine.....per lb.....	.....

[32 other articles are included in original table.]
Very respectfully,

J. K. HILLERS,
Photographer.

Approved: JAMES C. PILLING,
Chief Clerk.

As already stated, requisitions for the collaboration of specialists in the scientific work of the Survey are considered by the Director in person; but requisitions for non-scientific collaboration are generally considered by the chief clerk. Thus, requisitions for photographic work and map-mounting, requisitions for repairs of furniture by the carpenter employed in the Survey office, requisitions for repairs of instruments by the mechanic, and requisitions upon the petrographic laboratory for the preparation of microscopic slides, &c., are acted upon by the chief clerk. The forms of requisition for the last two purposes are appended:

REQUISITION UPON PETROGRAPHIC LABORATORY.

No. 31.]

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
July 27, 1887.

J. S. DILLER, *Assistant Geologist in charge Petrographic Laboratory* :
Please furnish to this office for G. E. Mills sections of rock herewith.

JAMES C. PILLING,
Chief Clerk.

Received August 3, 1887.

G. E. MILLS.

REQUISITION UPON MECHANICIAN.

U. S. GEOLOGICAL SURVEY,
DIVISION OF GEOGRAPHY,
May 3, 1887.

MECHANICIAN U. S. GEOLOGICAL SURVEY:

Please make repairs to instrument as follows: Repair upper vernier barometer, No. 9031.
A. H. THOMPSON,
Chief Geographer

The correspondence of the Survey is large, and, as already set forth, is carried on in three divisions; and it is consequently necessary that all correspondence shall be properly assigned. For this reason, all passes through the hands of the chief clerk, who has general oversight of the correspondence wherever carried on, and inspects all letters, &c., before they are submitted to the Director for signature.

In the exercise of his general oversight of the business affairs and *personnel* of the general office, the chief clerk becomes personally acquainted with all employés, and in his discretion issues passes for admission into the building after office hours, introductions to the librarians of other governmental Bureaus, &c. The forms used for these purposes are appended:

PASS.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., July 1, 1887.

The doorkeeper will admit Mr. James Stevens after office hours, from date to September 30, 1887.
JAMES C. PILLING,
Chief Clerk.

INTRODUCTION.

DEPARTMENT OF THE INTERIOR,
Geological Survey Office, May 10, 1887.

Mr. Edward M. Mills is a clerk in this Bureau.

JAMES C. PILLING,
Chief Clerk.

To the LIBRARIAN.

The same officer exercises supervision over the property returns and all other matters pertaining to the custodial system, and over the editorial, illustrations, document, and library systems, except as otherwise indicated above, and in general co-ordinates and distributes the energies of the business branch of the Survey.

The varied, as well as arduous and important duties attaching to the office of chief clerk are performed in an eminently satisfactory manner by Mr. James C. Pilling.

THE SURVEY REGULATIONS.

To facilitate the transaction of business by employés of the Survey, in accordance with the principles and methods set forth in the preceding paragraphs, the "Regulations" of the Survey were codified and printed, in 1882, in a bound volume of fifty-two pages. This volume contains (1) the organic law of the Survey, with instructions relating to its provisions; (2) instructions relating to money and property, comprising schedules and authorized expenditures for services, transportation, field subsistence and supplies, instruments, laboratory and photographic material, stationery, drawing material, office furniture, &c., with various necessary instructions to disbursing agents and custodians of property; (3) instructions relating to bonded railroads and the transportation of both individuals and property; (4) instructions relating to the collection of specimens, &c.; (5) instructions relating to publications; and (6) miscellaneous instructions. Whenever necessary, these instructions are illustrated and the methods are exemplified by the reproduction of the blank forms employed, properly filled out. Copies of this volume are placed in the hands of chiefs of divisions and parties.

SUMMARY.

It will be seen from the preceding statement that three principal requirements are constantly recognized in the organization and policy of the Geological Survey.

The first requirement is that the work of the Survey shall be performed in the most efficient manner. It is sought to meet this requirement by securing the collaboration of the most eminent specialists in geology and cognate branches of science and the most thoroughly skilled topographers and assistants of various grades to be found within the country, by the application of the principle of the division of labor to the fullest possible extent, by reducing to a minimum the routine and administrative

work necessarily performed by the scientific collaborators, and by the adoption of a convenient library system.

The second requirement is that the results of the work of the Survey shall be rendered accessible and valuable to the general public. This end is attained in part by intelligent legislation relating to publication and the enactment by Congress of wise laws governing the disposition of the publications of the Survey; but in part it is sought to be attained by the exercise of care in the preparation and detailed revision of reports, by the extended use of graphic illustrations and such reduction of expenses in the production of illustrations as to permit of their wide application, and by the adoption of a carefully devised document system.

The third requirement is that the most rigid economy consistent with the primary functions of the Survey shall be exercised. It is believed that this requirement is fairly met by the custodial, fiscal, stationery, and related business systems, by the application of new and economic methods in the illustration system, by the constant division of labor, by the method of allotments to responsible collaborators for stated purposes, and by the application in every division of the Survey of the principles (1) of fixing the responsibility by documentary evidence and (2) of rendering the documentary responsibility coincident with the actual responsibility.

For reasons already mentioned the personal organization of the branch of the Survey devoted to the transaction of business is less definite than the differentiation of function; different lines of the work are sometimes performed in the same division, and the same class of work is sometimes divided between two or more divisions; and in so far as has been found to be expedient the business operations of the Survey are performed by the scientific collaborators. Moreover, certain divisions of the Survey, *e. g.*, the library, are organized for the performance of duties which are semi-scientific in character, and these divisions accordingly may be referred with almost equal propriety to the scientific or to the business branch of the organization. This explanation is necessary to a complete understanding of the accompanying schedule showing the business organization of the Survey.

Schedule of Business Organization.

Chief clerk.....	James C. Pilling.
Division of disbursements and accounts.....	J. D. McChesney.
Custodian of property.....	J. E. Allen.
Division of library and documents.....	C. C. Darwin.
Division of illustrations.....	W. H. Holmes.
Photographic laboratory.....	J. K. Hillers.
Editorial and miscellaneous division.....	Thomas Hampson.
Section of stationery.....	L. S. Meador.

THE BUSINESS TRANSACTED.

CLASSIFICATION OF OPERATIONS.

As set forth in some detail in another part of this statement, there are three classes of operations carried on by the Geological Survey which are distinct in grade, distinct in principle, distinct in methods, and distinct in results.

The first of these is the work of purely scientific research carried on in most of the geologic and paleontologic divisions, and carried on in a measure in the geographic, the chemic, and several other divisions. This work is original and creative, and requires ability and judgment of a high order; it is pursued *con amore*; its methods cannot be antecedently planned except in the most general way, but must be developed as the researches progress; and its results are not susceptible of quantitative measurement in commonly recognized units.

There is another class of work involved in the financial and commercial operations growing out of the scientific operations of the Survey. This work stands upon the same footing as financial, commercial, and departmental operations generally; it affords more or less remunerative vocations to those engaged in it; it is antecedently planned in accordance with principles and methods that have been found by long experience in various business pursuits to be satisfactory, and it is executed in accordance with these pre-arranged plans; and its results are susceptible of quantitative measurement in units commonly recognized by the business man.

There is still another class of work performed in the Survey, in the geographic division, in the chemic division, and in some of the accessory divisions, which is intermediate between the foregoing classes. It is in part work of applied science, but in a measure requires original research and therefore creative ability and independent judgment; it is sometimes pursued because it affords agreeable and remunerative vocations, but it is pursued *con amore* by many because of the stimulus afforded in its pursuit by

discovery and conscious extension of the bounds of human knowledge ; it may be antecedently planned, but the plans and methods require more or less modification with increase of knowledge ; and its results may be quantitatively measured, but in terms recognized only by specialists.

The results of these three classes of operations must be presented independently and in different ways.

It has been shown also that there is a combination of function running through the different scientific and business divisions of the Survey whereby certain business is transacted by the scientific employes, while those employes are relieved of certain other duties naturally connected with scientific work, and whereby business of similar character is sometimes shared by different divisions while the same division sometimes performs different classes of duties. The extent to which differentiation of labor can be advantageously carried in an organization depends upon its size as well as upon a variety of other conditions ; and it has been the constant aim to so differentiate and combine functions in the Geological Survey as to secure the most economic and otherwise advantageous administration. Accordingly it is impracticable to tabulate fully the different classes of operations performed in the Survey for any considerable period ; for not only are the classes so diverse that the terms are necessarily different, but the greatest diversity of operations is sometimes found within a single division. For the same reason it is impossible to classify the operations of the Survey by the divisions in which they are performed except in a somewhat arbitrary manner.

The following statements of work performed in the accessory divisions and in the divisions organized for the transaction of business can therefore be regarded only as representative, and cannot be considered to include more than a fraction of the business actually transacted in the institution.

THE WORK IN SCIENTIFIC RESEARCH.

Ever since the Geological Survey was entrusted to the present Director, the fact has been recognized that scientific investigation can only be planned in a general way and cannot be quantitatively measured ; it was for this reason that the policy was adopted of selecting eminent specialists in science who pursue investigation for its own sake and for the sake of scientific reputation ; it was for the same reason that the method of allotments (described in another part of this statement) was devised, under which specialists are given the highest incentive to accomplish maximum results with a minimum expenditure ; it is for the same reason that all publications made by the Survey are issued under the names of their authors, who thus assume responsibility before the scientific world for the excellence of their work and receive credit for that work in so far as it is creditable ; and it is chiefly for the same reason that the monthly reports of the chiefs of divisions are submitted to the Secretary of the Interior for such use as he may see fit to make of them, and that the administrative reports of the same officers are published in full in the annual reports of the Survey.

It is not easy to measure scientific work ; its results cannot be tabulated or reduced to figures ; quality is of far greater importance than quantity ; but a means of justly estimating the amount and character of scientific results attained by the Survey is found in the monthly and annual reports of scientific operations.

One of the summary reports of progress which are presented monthly to the Secretary of the Interior, selected at random, is appended :

MONTHLY REPORT.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., April 11, 1887.

The Hon. the SECRETARY OF THE INTERIOR :

SIR: I have the honor to submit my report of the operations of the Geological Survey for the month of March, 1887 :

DIVISION OF GEOGRAPHY.

With the slight exception referred to below no field work was undertaken by the Division of Geography, the entire force continuing, in the office, the reduction of the field data of last season.

Northeastern section.—Topographers Bodfish, Johnson, and Karl made satisfactory progress in the drawing of atlas sheets. Mr. Natter and three assistants were engaged upon the Boston, Framingham, Lawrence, and Lowell sheets. Mr. Natter has so much work in hand that an additional draftsman was assigned him by transfer from the Washington office. Messrs. Jennings and Pierce performed 10½ days' field work.

New Jersey sub-section.—With the exception of Mr. Vermeule, the topographer in charge, the members of the party did no work for, and received no salaries from, the Geological Survey. Mr. Vermeule was engaged mainly in closing up the platting of the last season's field-work and in superintending the topographic work in progress under the auspices of the State survey preparatory to closing up the work remaining to be done by that organization in fulfillment of its agreement of 1884 with the U. S. Geological Survey with relation to joint work.

District of Columbia sub-section.—Mr. Howell made satisfactory progress upon the map of the District of Columbia.

In the Appalachian section the work of contouring, platting stations and meanders, the drawing of atlas sheets, &c., progressed steadily. It is not deemed necessary to give in detail the exact status at the close of the month of each individual branch of the work.

Central section—Topographer Baldwin finished, with the exception of the lettering, the four sheets comprising the field-work of last season, and is now engaged upon partial sheets, the field-work of which was done mainly in 1885. At the close of the month Mr. Peters was contouring the last sheet of his area, and Mr. Perkins was engaged in redrawing the last of the twelve sheets representing the area surveyed by him in 1885.

Western section.—With the exception of that of the Arizona sub-section the work of the entire section was practically completed at the close of the month. The Arizona sheets were under way and one of them was nearly finished.

Astronomic and computing section.—The computation of co-ordinates of points located on the crests of the Falls of Niagara in 1886 has been completed, and also a set of tables made for facilitating the computation of subterranean temperatures and temperature gradients. The theory of the free cooling of a homogeneous sphere has been completed, and the formulas have been so arranged that the positions of the isotherms can be computed, according to the hypothesis, for any time and any initial circumstances. The theory of the conditional cooling of a sphere has been examined, with the view of rendering it useful for the purposes of the geologist in determining the distribution of subterranean temperatures. Investigations in the theory of elasticity have been continued for the purpose of solving, if possible, various questions concerning elastic deformation of the earth's crust. A method of correcting computed latitudes, longitudes, and azimuths, for a change in the adopted spheroid, has been developed. The usual amount of information upon miscellaneous questions has been furnished to other divisions of the Survey.

Draughting section.—The draughtsmen have been engaged upon the nine-sheet map, upon the compilation of atlas sheets in the swamp region of Southeastern Virginia and Northeastern North Carolina, and upon the preparation of illustrations.

Section of instruments.—The mechanician has been engaged in making repairs to field instruments.

DIVISIONS OF GEOLOGY.

Prof. R. Pumpelly, of the division of Archean Geology, was engaged in working up the results of last season's field observations. He reports that the illness of Mr. Pierce, one of his assistants, interfered with the progress of the work.

Atlantic Coast Division.—Prof. N. S. Shaler, geologist in charge, states that he was engaged mainly in the preparation of his reports on the islands of Nantucket and Mount Desert, the former of which is practically completed and the latter well advanced; and that he also directed his assistants, Messrs. Cobb and Robertson, in their respective lines of work. Mr. Cobb's work was the preparation of sections from the boring made with the diamond drill in the Narragansett coal fields, to which reference was made in last month's report. These sections are now completed, and Professor Shaler says they represent about 3,000 feet of thickness of strata, which have been delineated with great accuracy on a scale sufficiently large to show every feature of the deposits. Associated with Mr. Robertson, Professor Shaler was engaged in advancing two inquiries which had long been on his mind. The first concerns the proportion of magnetic iron sand in the deposits of the glacial period, and the second the amount of common salt contained in various specimens of glacial clay which he has collected at different heights above the present sea level; the object of the latter inquiry being to ascertain whether, from the proportion of saline matter in our clays, it may not be possible to determine whether they were deposited in salt or in fresh water. Thus far the results of both lines of inquiry are highly encouraging.

A temporary assistant has been employed by Professor Shaler during the past two months in the preparation of a bibliography of the literature of coast-line problems and inundated lands.

Appalachian Division.—Mr. G. K. Gilbert, geologist in charge, was occupied during the early part of the month in studies, connected with the monograph of Lake Bonneville. On the 11th he started, in company with the Director, on a tour of inspection and reconnaissance, which consumed the remainder of the month. Studies were made in surface geology in Eastern Tennessee and in Florida, and the topographic maps in the former region were examined and criticised.

Mr. Russell continued the preparation of his report on the quaternary history of Mono valley; Mr. Willis was chiefly occupied in the projection of structural sections from his field-notes of last summer, and in the development of methods of projection for complicated structures; Mr. Geiger was likewise engaged in the projection of structural sections, and Mr. Darton steadily pursued his bibliographic work.

The operations of the Lake Superior Division, under Prof. R. D. Irving, were in all respects a continuation of those reported for February.

Prof. T. C. Chamberlin and assistants, of the *Glacial Division*, were engaged in office work in the elaboration of their several reports, the subjects of which have been stated in former reports.

Dr. A. O. Peale, of the Montana Division, nearly concluded the collection of statistics of mineral waters for 1886. A great deal of letter-writing is involved in this work.

In the Yellowstone Park division, under Mr. Arnold Hague, office work progressed steadily. The work of arranging the data obtained during the last field season is rapidly approaching completion. During the month Dr. F. A. Gooch, late a chemist in the Survey, forwarded to Washington a report of the results of a number of analyses of water from the Yellowstone Park. The report covers a series of analyses made by him under Mr. Hague's direction. It is quite lengthy, and the final computations and tabulations have occupied much of his time since taking the chair of chemistry at Yale. It embraces the complete analysis of 41 waters selected from the principal geyser basins, hot springs, &c., together with a great many data as to methods of separation and determination. Many of the methods are quite new, and were devised by Dr. Gooch during the progress of the work. Besides the interest taken by the public in the mineral composition of these important thermal waters, the new line of investigation called out by this work will be of the highest interest to science generally, as well as to chemistry.

A number of letters were received by Mr. Hague from people to whom was sent the new map of the Yellowstone Park, referred to in former reports—letters speaking in high terms of the work, and expressing a desire to see it widely circulated for the benefit of tourists in the Park.

In the Colorado Division, Mr. S. F. Emmons was occupied in the preparation for the press of the manuscript for the report on the Ten Mile District. Mr. Eldridge was engaged in making corrections of and additions to the topography of the Denver map, from the data gathered during his recent field trip, preparatory to drawing the geologic outlines upon the same.

Mr. Cross busied himself with the preparation of his chapters for the Denver and the Silver Cliff reports, and at odd moments he examined some remarkable forms of crystallized galena from Idaho. In the laboratory, Mr. Eakins made interesting tests of ores and country rocks from Butte, Mont., and some Tertiary coal in the nature of jet from the Denver Basin. He also analyzed a remarkable series of minerals resulting from the action of eruptive masses on sedimentary beds through which they had passed.

From the *California Division*, under Dr. G. F. Becker, the following report is made: Dr. Melville prosecuted to completion the study of the material collected by him at Sulphur Bank. He also identified a number of rocks from other sources, including minerals associated with cinnabar. Mr. Turner devoted some days to office work, but was engaged for the greater part of the month in field observations. Mr. Lindgren was occupied in classifying and studying the rocks collected last summer, and in making observations regarding the association of other minerals with cinnabar.

Capt. C. E. Dutton, of the *Division of Volcanic Geology*, reports steady progress in the collection of data bearing upon the Charleston earthquake, and in analyzing and preparing the same for final determination.

In the petrographic laboratory Mr. J. S. Diller made an optical study, for the chief chemist, of a series of four micas and altered tourmalines; and he also determined a number of lavas and other specimens received from various sources.

The thin sections prepared under his direction for the various divisions of the Survey number 243. A number of others were partially completed, and 360 for the Cascade range collection were labeled.

Mississippi Division.—For the first two weeks of the month Mr. L. C. Johnson was engaged in observations respecting the economic geology in Lauderdale and Clarke Counties. On the 14th he left under orders from this office for Grenada, Winston, and other counties in the north central part of the State, journeying via Corinth in order to examine some collections there, to arrange for future work in Alcorn County, and in order to confer with citizens of the section traversed who are asking attention to their respective localities. Work was continued in Grenada and neighboring counties as long as was deemed necessary. Industrially, he did not find the prospects as brilliant as the imaginations of the people had led them to suppose, but the region was very interesting from a geologic standpoint. Iron ore (limonite) of fair quality exists in that part of the State convenient to the Illinois Central Railroad. At the date of making his report his time in Winston County had been too short to enable him to give definite results. Geologically it is known to be very interesting.

DIVISIONS OF PALEONTOLOGY.

Prof. O. C. Marsh, in charge of the *Division of Vertebrate Paleontology*, reports that in the West extensive preparations were made for collecting, and that by the 1st of April the parties were ready to take the field. In the office at New Haven good progress was made in the preparation of reports. An important investigation of American Jurassic mammals was commenced, and an abstract of the results was expected to appear in the *American Journal of Science* for April.

In the *Paleozoic Division of Invertebrate Paleontology*, Mr. C. D. Walcott devoted much of his time to the study of the Taconic question in geology, and in order that early notice of the results obtained might be given to geologists interested in the subject, he prepared a paper on the "Taconic System of Emmons" for publication in the *American Journal of Science*. The main point in this paper will be more fully brought out in Mr. Walcott's paper on the geology of Washington County, New York, which is now well advanced.

The preparation of material for the study of the Upper Cambrian (Potsdam) faunas advanced steadily.

In the *Mesozoic Division of Invertebrate Paleontology*, Dr. C. A. White was engaged in the preparation and study of fossils, the results to be embodied in a bulletin of the Survey.

Cenozoic Division of Invertebrate Paleontology.—Late in March Dr. W. H. Dall, the chief of the division, returned from his trip of observation to Florida, referred to in previous reports. While in the field he visited a large number of points on the west coast of the State between Tampa and Charlotte Harbor, collecting the Tertiary fossils and determining the age of the strata. But the most interesting and successful part of his work was comprised in a visit to the Pliocene deposits on the headwaters of the Caloosahatchie River during which some dozen boxes of fossils and rocks were collected and a careful examination of the rocks completed. The collection includes nearly or quite double the number of species previously known from the locality, including a number which are supposed to be new, and which are in a fine state of preservation. Since his return, the members of the division have been chiefly engaged in preparing these for study.

Prof. L. F. Ward, in charge of the *Division of Paleobotany*, announces that no material change occurred in the work of the month from that reported for February. The proof-reading of Bulletin 37 was continued throughout the month. Having collected the necessary data for the "Sketch of Paleobotany," mentioned in the last report, he began the writing of the paper, and made fair progress.

Prof. W. M. Fontaine pursued to completion the preparation for the report on the Potomac flora of the new material obtained last summer. He has also since been steadily engaged in putting the manuscript into final shape for printing.

Prof. S. H. Scudder, of the *Division of Fossil Insects*, completed his paper on the fossil butterflies of Florissant. He also studied for comparative purposes the Carabidæ and Coccinellidæ of the Tertiary beds of Oeningen, in Baden, and worked up the Florissant species of Coccinellidæ, and other Tertiary Clavicorn beetles of the United States.

DIVISION OF CHEMISTRY.

In the *Division of Chemistry and Physics* Prof. F. W. Clarke was engaged in the continuation of his investigations of the mica groups, and in making a series of analyses for Dr. Peale of the Survey.

Mr. Hillebrand was at work upon the analytic separation of zirconium and titanium, and upon the examination of a series of rare copper minerals from Utah. Mr. Chatard reported several analyses of salts, clays, &c., and continued his investigations of the brines of Owens and Mono Lakes. Mr. Whitfield reports three analyses and general assays, including the rare borates, ludwigite and pandermite. Mr. Riggs finished a series of tourmaline analyses of great difficulty and importance.

In the physical laboratory Drs. Barus and Hallock continued their respective investigations upon high temperatures and rock expansion.

DIVISION OF STATISTICS.

Dr. T. D. Day, in charge of the *Division of Mining Statistics*, reports that the work of the division consisted in collecting and compiling data for "Mineral Resources of the United States, 1886," and in furnishing technical information to correspondents.

PUBLICATIONS.

The proofs received during the month consisted of 69 galleys and 317 pages of Bulletins 36, 37, 38, and 39; those returned, of 95 galleys and 138 pages of the same works.

Eight sheets of the Topographic Atlas of the United States were approved and ordered printed.

COLLECTIONS.

There were added during the month to the Survey's collections in Washington 16 boxes of minerals and fossils.

I am, with respect, your obedient servant,

J. W. POWELL,
Director.

Each annual report of the Survey comprises two portions, viz: (1) the administrative reports of the Director and the heads of divisions, and (2) the accompanying papers, which consist of treatises on special subjects investigated by collaborators of the Survey during the year covered by the report. The first part of each report is a simple statement of the scientific methods pursued and a condensed summary of the scientific results attained during the year. The second annual report contains 100 octavo pages of such administrative matter, illustrated by 9 plates; the third annual report contains 60 pages of such matter, illustrated by 2 plates and some figures; the fourth annual report contains 104 pages, illustrated by one plate and some figures; the fifth annual report contains 100 pages, illustrated by 2 folding maps; the sixth annual report contains 130 pages of administrative matter, illustrated by 10 plates, a part of which are folding maps; and the seventh and eighth annual reports, now in press, contain still larger amounts of matter descriptive of scientific methods and results. These various reports are condensed to the utmost; and to them the citizens of the country must be referred for information concerning the objects sought to be attained, the methods pursued, and the practical results reached by the scientific branch of the Geological Survey.

THE WORK IN APPLIED SCIENCE AND RESEARCH COMBINED.

The Topographic Work.

As shown in the various reports of the Survey, and in preceding pages of this statement, the topographic surveys are carried on in accordance with definite plans, only so far modified from time to time as local conditions and requirements demand; but, as has also been shown, these surveys involve the development of new methods, the adjustment of old methods to new conditions, the invention of labor-saving and money-saving devices, the selection or invention of new conventions for the graphic representation of topographic forms, &c.; and it has invariably been found that the most satisfactory work for the geologist and for the general public alike is performed by the most thorough students and those who feel the greatest interest in their work. So the principle of employing specialists interested in their specialties, the method of allotment, and the policy of fixing individual responsibility and credit by publication of maps under the names of the surveyors, are all applied throughout the geographic division.

The character of the work of this division has been described elsewhere. The amount of work done in the form of areas surveyed, of maps drawn, and of maps engraved, is carefully tabulated in each annual report of the Survey.

It is impracticable to set forth in detail the time actually spent in topographic work by any employé of the division of geography for any considerable period. At the commencement of the field season each topographer is assigned to a certain field in which he is expected to survey an area which can only be approximately estimated in advance, partly because the conditions affecting the rate of survey vary from place to place and cannot be determined for any area until it has been actually surveyed, and partly because his rate is affected by weather, in some portions of the country by the state of the atmosphere, &c. The surveyor has, however, the stimuli of interest in his work, of prospective credit for successful accomplishment, and of emulation; and his work is, moreover, inspected from time to time, in respect to both quality and quantity, by chiefs of divisions who not only have the same stimuli but are known for their ability, energy, and integrity. Thus the work performed by topographers in the field cannot well be measured by hours or days. Usually the day of labor is as long as that of the farmer, miner, or stockman of the same region, and while fractions of days or even longer periods may be lost in consequence of bad weather, every effort is generally made to produce the best possible results during the field season.

During the office season each topographer is required to reduce the observations of the field season, and to map the area covered by his surveys. It is found in practice that the topographer bends every energy to the accomplishment of this task, partly with the object of reducing to a minimum the period of office work, which is always

less agreeable to active men than field work. The keeping of time reports of employés in the geographic division has been tried, but has been found to be useless, if not injurious.

The record of each topographer is found in the maps prepared by him and printed over his name; when this record is unsatisfactory he seeks another vocation; the record is promptly published; and it is by such records alone that the work of the geographic division may be justly measured either as to quality or as to quantity.

The Chemic Work.

Two generally distinct classes of work are performed in the division of chemistry and physics: viz, (1) analytic work and assaying, and (2) original researches relating to the genesis and relations of minerals, ores, and rocks. The first of these classes represents work of applied science, and the second work of pure science. The results of the first may be quantitatively measured, while the results of the second are not susceptible of statement in figures.

The chief of the division of chemistry and physics submits monthly and annual reports, the latter of which are published; and within these reports the original researches are described, and the results thereof are summarized.

The technic work and results are set forth in the accompanying statement prepared in the division:

Report of the chemic division, Geological Survey Office, on the methods of business and work, as requested by Senate Select Committee, and called for by Department circular of March 23, 1887.

Statement showing the principal items of business transacted in the chemic division of the Geological Survey Office, Department of the Interior.

(1) Analyses of rocks, minerals, ores, soils, waters, &c., collected by members of the Survey in the field.

(2) Occasional analyses for other public Bureaus, as of inks for the Interior Department; steel for the Ordnance Bureau, U. S. Army; building stones for the Supervising Architect, Treasury Department, &c.

(3) Identification of mineral species sent to the Survey for examination.

(4) Investigation into problems in chemic and physical geology. At present researches are in progress upon the utilization of the alkali brines and sediments of Utah, Nevada, and California; upon the composition and relations of certain families of minerals; upon the temperatures of fusion of rocks; the expansion by heat of rocks, and upon the improvement of analytical processes used in the laboratories.

Statement showing in detail the methods of transacting business in the chemic division of the Geological Survey Office, in the Department of the Interior, including one or more items of the principal business matters transacted in said division, beginning with the receipt of the business matter in the Survey Office, and then showing in consecutive order the various steps taken by each of such principal business matters through the appropriate divisions of said office, and the employés through whose hands the same passes, and by whom it is considered and acted upon, and the action thereon had and taken by each until the same is finally disposed of, and notice thereof duly given to the proper party.

A rock, mineral, or other substance to be analyzed is received by the Director and referred by him to the chief chemist. It is then entered up in an Accession Record by number and description. It is next placed in the hands of one of the chemic force, who makes the analysis and reports the result upon a regular blank form to the chief chemist. The latter copies the report into a laboratory record book and transmits the original, with the accompanying papers, to the Director.

Statement showing the amount and character of business received, transacted, and disposed of during the period, and on hand, pending, and undisposed of at the dates, specified below, in the chemic division of the Geological Survey Office, Department of the Interior:

The chemic laboratory was started in December, 1883. From December 1, 1883, to April 1, 1887, 721 analyses have been finished and reported. About 70 are on hand unfinished. The work has its busy and its dull seasons; for sometimes material comes in in large batches, and at other times in driblets. In the long run, say, year by year, the laboratory keeps up with the work, but cannot get much ahead of it at any time.

Investigations other than routine analyses are carried on as opportunity offers, but cannot be described in statistical form.

Statement showing the average number of employes in the chemie division of the Geological Survey Office, Department of the Interior, during the periods specified.

Calendar year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1884.....	6	6	6	7	8	8	8	8	9	9	9	9
1885.....	9	9	10	10	10	9	9	9	9	9	10	10
1886.....	10	10	10	10	10	10	9	9	9	9	9	9
1887 (to March 1)	9	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

December, 1883, to April, 1884, 2 chemists, 2 physicists, 2 laborers.

April, 1884, to September, 1884, 3 chemists, 2 physicists, 3 laborers.

September, 1884, to March, 1885, 4 chemists, 2 physicists, 3 laborers.

March, 1885, to June, 1885, 5 chemists, 2 physicists, 3 laborers.

June, 1885, to October, 1885, 5 chemists, 2 physicists, 3 laborers.

October, 1885, to June, 1886, 6 chemists, 2 physicists, 2 laborers.

Since July 1, 1886, same as for period immediately preceding, less 1 chemist.

Statement showing the maximum and minimum amount of business transacted and disposed of by the employe doing the most and the employe doing the least during the periods specified, in the chemie division of the Geological Survey Office, Department of the Interior.

In a chemie laboratory no such record can be kept. One analysis may be finished in a day, another may take a week, another three or four weeks. The question of steadiness and quality of work can be considered, but quantity cannot, for the different quantities are incommensurable. In scientific investigations, research work proper, this is even more emphatically true. We can judge of the results on their merits, but not on their bulk.

Statement showing the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified, by the employes in the chemie division of the Geological Survey Office, Department of the Interior.

Hard to answer definitely. Some of the force have been in summer detailed for longer or shorter periods to work in the field divisions. In only one case has any member of the force been absent for more than the 30 days allowed by law, and then the absence was due to the death of the employe's father in Europe and a necessary voyage across the Atlantic. Some members of the division have never taken a full allowance of leave, and nearly all the scientific force (being personally interested in their work) are on duty on holidays, and, also, three days out of four, after regular hours. This extra time has never been required, and is purely voluntary. It counts for the personal scientific reputations of the workers, and it would not be noted here.

The Statistical Work.

The greater part of the work of the division of mining statistics and technology consists of the collection of statistics relating to mines and mining, and to the compilation of tables representing the mineral products of the country; and this phase of the work of the division is set forth in the accompanying statement prepared by its chief.

A part of the work of the division consists of investigations into the relations of rocks and minerals, with a view to ascertaining the prospective supply of coal, petroleum, rock-gas, and various ores, &c., and into other cognate subjects of immediate or remote practical moment. The results of these more special investigations are set forth in the volumes of statistical papers annually prepared in the division.

Statement showing the principal items of business transacted in the mining statistics and technology division of the U. S. Geological Survey, Department of the Interior.

The principal business of the division of mining statistics and technology consists in:

(A) Correspondence for collecting information concerning the development of new mineral localities, furnishing information to correspondents as to sources of minerals for which new uses have been found, and advising as to new uses to which minerals can be applied.

(B) Supplying technic information concerning new methods of mining and manufacturing.

Statement showing the maximum and minimum amount of business transacted and disposed of by the employé doing the most and the employé doing the least during the periods specified in the mining statistics division of the Geological Survey, Department of the Interior :

No account has been kept of the work done by each employé. The duties of each were not separate, but constantly changed according to work in hand.

Statement showing the average number of days and the time and attention devoted to the consideration and transaction of business during the periods specified by the employés in the mining statistics division of the Geological Survey office, Department of the Interior.

Calendar year.	Number of employés.	Average number of days present.	Average number of hours employed daily.	Number by proxy.	Remarks.
1884.....	2	294 $\frac{2}{3}$	6 $\frac{1}{2}$	0	Work by no means limited to office hours; much of it done at night and on holidays, &c.
1885.....	3	284	6 $\frac{1}{2}$	0	
1886.....	3	296 $\frac{1}{3}$	6 $\frac{1}{2}$	0	
1887 (to March 1)	5	48	6 $\frac{1}{2}$	0	

Statement showing the maximum number of days devoted to business by the employé present for the greatest number of days and also the minimum number of days devoted to business by the employé present for the least number of days in the mining statistics and technology division of the United States Geological Survey, Department of the Interior, during the periods specified.

	1884.	1885.	1886.	1887 (to March 1).	Character of business.
Maximum number of days.....	307	301 $\frac{1}{3}$	305	48	Chief of division.
Minimum number of days.....	277	271	294	48	Stenographer.

THE WORK IN THE BUSINESS BRANCH.

The Division of Disbursements and Accounts.

The character of the business transacted in this division has been described in detail in preceding pages. It should be observed that not only the fiscal business, but all business pertaining to custodial matters, is carried on under this division; but by far the larger part of the custodial business is actually transacted in the scientific division of the Survey.

From the preceding statement of the manner in which these two classes of business are conducted, it will be apparent that while the amount and character of business transacted in this division during any period can be definitely stated, it is impossible to estimate accurately the time occupied in the transaction of the business, or to institute comparisons as to the efficiency of employés; for the major part of the work is performed by scientific employés, who merely add the labor of disbursing and caring for property to their other duties, and much of it is done in the field under adverse circumstances. Accordingly the accompanying statement, prepared under the direction of the chief of the division, represents the amount and character of a certain class of business received, transacted, and disposed of during the period specified, but no attempt has been made to tabulate the number of individuals employed, the relative efficiency of individuals, or the aggregate time occupied in the transaction of the business.

The following statement shows in detail the fiscal business in the disbursements and accounts division of the office of the United States Geological Survey for the fiscal years 1884, 1885, 1886, and 1887 :

Character of business.	Pending July 1, 1883.	Received during fiscal year 1884.	Transacted and disposed of during fiscal year 1884.	On hand and undisposed of July 1, 1884.	Received during fiscal year 1885.	Transacted and disposed of during fiscal year 1885.	On hand and undisposed of July 1, 1885.	Received during fiscal year 1886.	Transacted and disposed of during fiscal year 1886.	On hand and undisposed of July 1, 1886.	Received during fiscal year 1887 (to Mar. 1).	Transacted and disposed of during fiscal year 1887 (to Mar. 1).	On hand and undisposed of Mar. 1, 1887.
Number of vouchers	1,482	7,901	7,506	1,877	8,738	8,399	2,216	6,406	7,212	1,410	3,462	2,221	2,651
Letters received and sent		3,399			5,224			4,875				3,691	
Letters indexed		3,399			5,224			4,875				3,691	

The Division of Library and Documents.

The operations of this division of the Survey are described at length elsewhere. The business transacted, the employés, &c., since January, 1884, are tabulated below by the chief of that division.

The following statement shows in detail the business in the library and documents division of the office of the Geological Survey, Department of the Interior, for the calendar years 1884, 1885, 1886, and 1887 :

Character of business.	Pending July 1, 1883.	Transacted and disposed of during year 1884.	On hand and undisposed of July 1, 1884.	Transacted and disposed of during year 1885.	On hand and undisposed of July 1, 1885.	Transacted and disposed of during year 1886.	On hand and undisposed of July 1, 1886.	Transacted and disposed of during year 1887 (to March 1).	On hand and undisposed of Mar. 1, 1887.
Books and pamphlets received, registered, catalogued, &c.	0	7,148	0	8,031	0	9,664	0	1,296	0
Books prepared for binding	0	1,136	0	3,064	0	1,891	0	100	0
Books issued and returned	0	1,251	0	4,754	0	10,028	0	973	0
Books drawn from and returned to Lib. Cong.	0	670	0	1,572	0	1,566	0	236	0
Publications received from Public Printer	0	31,411	0	68,564	0	36,155	0	5,669	0
Publications distributed, sold, and exchanged	0	13,105	0	24,654	0	25,820	0	10,338	0
Letters received and filed	0	9,198	0	14,753	0	16,451	0	3,829	0
Letters sent and indexed	0	7,838	0	13,597	0	11,141	0	3,871	0

The following statement shows the average number of employés in the library and documents division of the office of the United States Geological Survey during the time specified :

Months.	Average employés 1883-'84.	Average employés 1884-'85.	Average employés 1885-'86.	Average employés 1886-'87.
July	4	7	10	12
August	4	8	9	13
September	4	8	9	13
October	4	9	9	13
November	4	9	10	13
December	4	9	10	13
January	4	9	11	12
February	6	8	10	12
March	6	8	11	.....
April	6	8	12	.....
May	6	9	12	.....
June	6	10	12	.....

No intelligible record of the average amount and character of work performed either by individuals or by the entire force can be kept in a library. It is work of research rather than of marked result. The facts desired in one instance may be obtained in an hour, in another in a month only. The time of every clerk is employed in full, and it is only by frequent co-operation and continued mutual endeavor that the constant demands upon the force are met.

The following statement shows the average number of days' time and attention devoted to the transaction of business by the employés of the library and documents division of the office of the United States Geological Survey, in person and by proxy, during the years named, with number of days during each year so devoted to business by the employé present for the greatest number of days and by the employé present the least number of days during said years. Department open from 9 a. m. to 4 p. m., with half hour at noon for lunch. Time to be devoted to business, 6½ hours daily.

Years.	Days Department open.	Days worked in person.	Days worked by proxy.	Total days worked.	Number of employés.	Average number of days worked.	Hours employed daily.	Most days worked by employé.	Least days worked by employé.
1884	307	1,743	0	1,743	7	249	7	282	255
1885	301½	2,610	0	2,610	9	270	7	284½	273
1886	305	3,180	0	3,180	12	265	7	283	253½
1887 (to March 1)	48	511.2	0	511.2	12	42.6	7	48	41

The Division of Illustrations.

For present purposes the section of topographic drawing in the geographic division may be combined with this division; for the principles and methods of work in this section are essentially unlike those of the other sections of the geographic division, and essentially similar to those of the division of illustrations. Thus combined, the division will comprise three departments, viz: The department of artistic drawing, the photographic department, and the department of map-drawing.

The work of the first and third of these is of peculiar character, in that the items and units are so inconstant and the processes and methods so variable that it is impossible to tabulate the results of the work performed in such manner as to convey any definite idea of the work actually accomplished. The only common unit is the drawing; but the drawing may only represent a few minutes' work by a draftsman of moderate skill, or it may represent the results of the work of months by the most skillful draftsman obtainable; and a tabulation based upon such a unit would be meaningless. Each draftsman, indeed, keeps a record of the drawings which he prepares during the year, but this record affords no means of reliably comparing the efficiency of individuals or of measuring the efficiency of the corps. Accordingly no attempt has been made to tabulate the work performed in the former of these departments, and the tabulation in the latter has little significance.

It has also been found impracticable to keep intelligible time records in these departments, for the reason that the employés do not work continuously under the head of the division. The services of the draftsmen are placed at the disposal of the heads of different scientific divisions, sometimes for the preparation of finished drawings, and sometimes for the preparation of working diagrams and drawings, which are either used in the preparation of illustrations for reports or destroyed after they have served an immediate purpose; and the photographers' assistants are similarly transferred. Thus the force actually employed in this division is variable, ranging from four or five to fifteen or sixteen assistants.

It is impossible to accurately determine the number of photographic negatives made in the Survey during any given period, for the reason that the greater part are made by geologists and topographers in the progress of their work as already set forth, while some are made by outside photographers under special contract, and only a limited number of field negatives are made by the attachés of the photographic laboratory. Most of the negatives made in the Survey are, however, developed in the photographic laboratory, and the accompanying record of this work is measurably complete. The record of the photographic prints made for use in the prosecution of the work of

the Survey and for the special exchanges described in another part of this statement is practically complete.

With this explanation the accompanying statements, prepared in the three departments of the division of illustrations, may be readily understood.

The following statement shows in detail the business in the illustrations division of the office of the U. S. Geological Survey for the calendar years 1884, 1885, 1886, and 1887:

Character of business.	Transacted and disposed of during calendar year 1884.	On hand and undisposed of Jan. 1, 1884.	Received during calendar year 1885.	Transacted and disposed of during calendar year 1885.	On hand and undisposed of Jan. 1, 1886.	Received during calendar year 1886.	Transacted and disposed of during calendar year 1886.	On hand and undisposed of Jan. 1, 1887.	Received during calendar year 1887 (to March 1).	Transacted and disposed of during fiscal year 1887 (to March 1).	On hand and undisposed of Mar. 1, 1887.
Photographic negatives and prints.....	8,561	.....	.....	10,942	.....	.....	11,702	.....	.....	.....	.....
Maps, diagrams, &c .....	.....	1	407	404	4	522	513	13	256	254	115

The Editorial and Miscellaneous Division.

The general character of the work performed in this division has already been described in detail. The special character of the business received, transacted, and disposed of, the number of employes, &c., in the division since January 1, 1884, are set forth in the accompanying statement, prepared in the division:

The following statement shows in detail the business in the editorial and miscellaneous division of the office of the Geological Survey for the calendar years 1884, 1885, 1886, and 1887:

Character of business.	Pending January 1, 1884.	Received during calendar year 1884.	Transacted and disposed of during calendar year 1884.	On hand and undisposed of at close of 1884.	Received during calendar year 1885.	Transacted and disposed of during calendar year 1885.	On hand and undisposed of at close of 1885.	Received during calendar year 1886.	Transacted and disposed of during calendar year 1886.	On hand and undisposed of at close of 1886.	Received during calendar year 1887 (to March 1).	Transacted and disposed of during calendar year 1887 (to March 1).	On hand and undisposed of March 1, 1887.
1. Letters and reports received and sent.....	0	4,912	4,912	0	4,004	4,004	0	5,229	5,229	0	649	649	0
2. Manuscript reports for publication.....	1	16	13	4	20	17	7	17	12	12	3	1	14

The following statement shows the aggregate amount and character of business performed, transacted, and disposed of in the editorial and miscellaneous division of the office of the Geological Survey, with average number of employés during the time specified:

Months.	1884.		Aggregate employés, 1885.	Aggregate employés, 1886.	Aggregate employés, 1887.
	Aggregate amount.	Aggregate employés.			
July	*396	6	6	7	.....
August	461	6	6	7	.....
September	316	6	6	7	.....
October	501	6	6	7	.....
November	471	6	6	7	.....
December	456	6	6	7	.....
January	371	6	6	7	7
February	326	6	6	7	7
March	426	6	6	7	.....
April	296	6	6	7	.....
May	441	6	6	7	.....
June	451	6	6	7	.....
Total averages	4, 912	72	72	84	14

* The figures in this column relate only to the character of business indicated in line 1 above, it not being possible to apportion that on line 2 into months.

The nature of the work done in the editorial and miscellaneous division is such as obviously renders it impracticable to keep an account of the maximum and minimum amounts performed by individual employés.

The following statement shows the average number of days' time and attention devoted to the transaction of business by the employés of the editorial and miscellaneous division of the office of the Geological Survey, in person and by proxy, during the years named, with number of days during each year so devoted to business by the employé present for the greatest number of days and by the employé present the least number of days during said years. Department open from 9 a. m. to 4 p. m., with half hour at noon for lunch. Time to be devoted to business, 6½ hours daily.

Years.	Days Department open.	Days worked in person.	Days worked by proxy.	Total days worked.	Number of employés.	Average number of days worked.	Hours employed daily.
1884	307	1, 776	.....	1, 776	6	296	6½
1885	301½	1, 677	.....	1, 677	6	279½	6½
1886	305	1, 974	.....	1, 974	7	282	6½
1887 (to March 1)	48	236	.....	336	7	48	6½

The number of employés of this division remains practically the same throughout any given year. Absences for as short a period as one day are taken into account in this statement.

Occasional transfers of clerks to and from this division, sometimes temporarily and informally, so complicate the record of attendance as to make a calculation of the maximum and minimum number of days' work performed in any year extremely difficult, and perhaps not strictly trustworthy.

The Work of the Stationery Clerk.

The character of the work performed in this section of the Survey has also been described in detail on other pages.

The duties of the stationery clerk are limited to the issue of stationery, upon properly indorsed requisitions. The number of requisitions filled during each month from January, 1884, to February, 1887, inclusive, is represented in the accompanying table:

Requisitions filled.

Months.	1884.	1885.	1886.	1887.
January	76	306	436	346
February	72	238	331	311
March	78	267	370	.....
April	60	275	351	.....
May	69	261	268	.....
June	57	293	244	.....
July	133	222	247	.....
August	96	150	149	.....
September	113	165	191	.....
October	206	189	246	.....
November	190	245	377	.....
December	316	358	326	.....
Total	1,466	2,969	3,536	657

Recapitulation.

1884	1,466
1885	2,969
1886	3,536
1887	657
Total	8,628

The work of the Department is performed by a stationery clerk, who is sometimes assisted by one or two messengers.

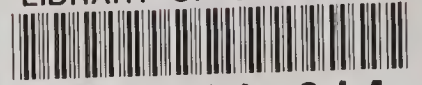






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